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THE AMERICAN AGRICULTURIST.

Agriculture is the most healthy, the most useful, and the most noble employment of Man.—*Washington.*

Vol. 1. **New York, April, 1842.** **No. 1.**

A. B. Allen, and R. L. Allen, Editors. 36 Park Row. Geo. A. Peters, Publisher.

"THE AMERICAN AGRICULTURIST" will be pulished Monthly, each number to contain thirty two pages, royal octavo.

Terms.--One Dollar per annum payable strictly in advance.

Six Copies will be sent for $5, if remitted at one time, free of postage, in funds current in New York, or in the States where the Subscribers reside.

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"The American Agricultural Magazine."

A Work of the above title will be issued from this Office, as soon as a sufficient number of Subscribers shall have been obtained, to justify commencing the publication. It will consist of sixty-four pages monthly, of which the American Agriculturist will constitute a part, embellished with one or more fine engravings in each number, and in the selection from the most enlightened Foreign works, and a more enlarged discussion of matters pertaining to American Agriculture, than can be given in our present columns; it is intended to supply a place for the general Farmer, not afforded by any periodical now published.

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Payment will in all cases be required in advance.

☞**Postmasters are permitted by Law to enclose money for Subscriptions, free of postage.**

Each number of the Agriculturist contains **but one sheet, and will therefore be subject to newspaper postage only,** which is **one cent** in the State, or within 100 miles of its publication, and **one and a half cents** if over 100 miles without the State.

The Prospectus for the present work, on a somewhat different plan, was issued in December last, with the expectation that the first number would be published in January, but unavoidable circumstances have prevented either of the Editors from coming to this City to attend to its publication till the present time.

It will hereafter be punctually issued on the first of every month, and should it be ascertained to be the wish of our Subscribers, all the numbers constituting the first volume, may be issued before the last of December ensuing, so as to commence the second volume with the first of January, 1843.

It will be perceived by our terms above, that we intend publishing an enlarged Agricultural Journal, to be called "The American Agricultural Magazine." Such a work has been urgently demanded by the more advanced and scientific Farmer and Planter, and will contain most of the interesting matter to be found in Foreign works, adapted to American soil, climate, and production, with more extended and scientific discussion and illustration of farming stock and of home productions, than is suited to the general and popular taste.

As this will be attended with considerabe expense, we must wait the expression of public opinion for a short time, which we shall look for, accompanied with such *substantial* and *convincing arguments*, (viz. the remittance of their suscriptions,) as will enable us at once to commence the publication of a work so desirable to the Agriculturists throughout the country. Should the publication of this work be delayed for a considerable time, the subscriptions forwarded will be returned, or applied to the "American Agriculturist," at the option of the Subscribers.

TO OUR READERS.

In introducing ourselves to the public as the conductors of a new Agricultural Journal, we should do injustice to their good sense, not to confess frankly, a diffidence in entering upon a career, which is in the extent and weight of its obligations, new, arduous, and responsible.

It is but a few years since the first agricultural periodical issued from an American press, to flicker for a short period before the listless gaze of public apathy, and then expire for want of adequate support. In like manner several papers of conceded merit successively rose and sunk, until at last, from their unrequited efforts, the spirit of our people was aroused to the importance of agricultural information, and the public mind had become awake to a partial appreciation of the necessity of scientific enquiry as connected with the cultivation of our soil, and the general improvement of our farming system. In accordance with the public demand, several useful and well sustained papers have sprung into existence within the last few years, which from the intelligence they have imparted on agricultural subjects throughout the country, have added millions to our national wealth and prosperity.

We too, have come into this ample field as laborers. In doing so, we arrogate to ourselves no superiority of intellect, or higher sources of knowledge than are possessed by our contemporaries and fellow Journalists. We seek only to enlarge the boundaries of that high order of intelligence, which we know the pursuits of an enlightened system of husbandry require, and we trust we shall so demean ourselves in conducting our work

as not only to merit the approbation of that public whom we address, but inculcate also, that respect for this noble profession which it so eminently deserves.

The pursuit of agriculture in its broadest sense, it need hardly be observed, constitutes the basis of our national virtue and national wealth. Yet important as it is in the accomplisment of these great objects, and in its truly elevated and dignified character, it has been, and still is, in its real merits, estimated below that of other professions in our land.

The pecuniary troubles, which, within the last few years, have so extensively visited our country, have been produced *almost exclusively* by the neglect of this indispensable basis, on which all other pursuits should rest; and the disastrous fate which other occupations have met, constituting as they have done, a too enlarged super-structure for our agricultural foundation, has taught the present generation, lessons of wisdom which they will not soon forget. We must now begin, once more, to build our social system, and make our *foundation sufficiently broad and strong*, and if our intemperate ambition and misguided enterprise induces us to enlarge the edifice beyond the extent of a perfectly adequate support, we must inevitably expect to see it "topple down headlong." There are principles and laws in the social system, as firm and unyeilding as in the mechanical, and whenever they are disregarded, we must look for its partial derangement, or entire subversion. That shrewd observer of men and things, Baron Rothschild, foresaw with a noon-day clearness, the tedency of our system in the recent heyday of our fictitious prosperity, when he refused the tempting offer of an American loan at a large premium, for says the sagacious banker, "a nation that ought from its pursuits, to furnish a surplus of produce, can find money neither for principal or interest while it has to buy its bread in Europe."

We need to have the occupation of farming made more popular and attractive; it should occupy a higher niche in popular estimation and in the scale of national employments; it should command not only the cold respect and distant admiration of our active and enterprising business men, but their warmest regard and cordial participation. When this is the state of public opinion and our professional and mercantile and speculating pursuits, are disincumbered of their legions of supernumeraries, our mechanics and manufacturers sustained in their meritorious efforts to supply our country with her own fabrics; then may we expect that real and substantial return of prosperity, which we may otherwise look for in vain.

To aid in directing and stimulating the efforts of our enterprising and patriotic countrymen in consummating so desirable a result, our time and talents will be devoted, and we shall feel amply compensated if we shall succeed in contributing, even in a remote degree, to the accomplishment of an object so dear to every American heart.

We should be justly deemed neglectful of the unsolicited compliment paid by the intelligent gentlemen composing the board of agriculture in the American Institute of this city, to one of the editors of the Agriculturist on learning that he was about to establish such a work here, should we omit to give it publicity in our columns, and we can only say that our own exertions shall not be wanting to reedeem the pledge they have so liberally proffered.

At a meeting of the "Board of Agriculture" of The American Institute of the City of New-York, held on the 27 day of December, 1841, a prospectus of "The American Agricultural Magizine," about to be established in this city, and conducted by Mr. A B. Allen, having been read and submitted to their consideration, it was

Resolved, That in the opinion of this Board, the establishment of a national Journal of Agriculture in the city of New-York, at this time, is demanded by the vast and growing interests of American husbandry and domestic economy in the United States. Believing that its location at the seat of our great agricultural fairs, where the highest sources of information on all subjects connected with this great interest are at hand, will be productive of eminent good, and possessing entire confidence in the ability of Mr. Allen to conduct the work in such manner as will promote our agricultural advancement, we cheerfully recommend it to the attention and support of our fellow citizens throughout the country.

JEREMIAH JOHNSON, *Chairman.*
Nicholas Wyckoff, *Secretary.*

The following gentlemen compose the Board of Agriculture of the American Institute:

Jeremiah Johnson,	Joseph Wood,
Charles Henry Hall,	Samuel Bradhurst,
Thomas Addis Emmet,	Gideon Freeborn,
Francis Price,	Abraham Bell,
Henry Whitney,	J. E. Cropsey.
Nicholas Wyckoff,	

The form of our sheet differs from that of a large proportion of our American Agricultural papers, and it may perhaps be proper to give the reasons for this variation. They are simply these. It is a more compact and convenient form for reading as an unbound sheet, and as we intend to give a series of volumes that will not only afford matter for present entertainment, but contain such information as will justify being bound, and have their appropriate place hereafter in the library, as a work for future reference and perusal, we deem a form and size similar to that of the larger books found there, absolutely essential. We know no reason for giving a large quarto form to an Agricultural publication, that requires a separate niche for itself, or must be lying exposed on a table, or stowed away in some remote drawer. As we shall claim for it a place among kindred works of a well-selected library, we think the public have a right to demand of us a similar size and shape. The only objection that occurs to us, is the inconvenience of giving large plates; but this is perhaps totally removed, when we consider for all general purposes, a portrait of any animal of the size of one of our pages is sufficiently large, and a plan of a farm, buildings, &c., can be given on a map if required, that can be folded without injury.

Our location being in the heart of a Commercial Metropolis, may cause some apprehension of a want of that entire devotion to Agricultural matters, which must characterize a Journal that is expected will be in the highest degree beneficial to the Farming community. In answer to any such well suggested objection, we would say, that we have maturely weighed

the pros and cons of our position, and it was not till after the fullest deliberation, and the opinion of many of our friends whose judgment we would rather confide in than our own in this matter, that we have decided to take our stand here. We have in this great Commercial emporium, access to information and means for procuring as well as distributing it, that cannot be found elsewhere. More Farmers and Planters resort here than to any other city of the Union, and the facility of procuring back numbers and volumes, as well as those just issued, without the expense of postage, is no inconsiderable item. And our own opportunities for looking over crops and herds, and visiting our subscribers is greater than it would be in any other place. And to those who know us, we need not assure them, that though we are personally in the city, *our hearts are in the country* as well as our interests. We shall not prove recreant to our trust.

Our Office is in a central position, No. 36 Park Row, opposite the City Hall, where we shall be happy to see and converse with any friend to the great object whose interests we are advocating; and those who cannot come personally, we shall be glad to hear from by letter, detailing their experiments in crops and animals, furnishing such other information as may be interesting and relevant to our subject, or making suggestions and inquiries. We shall be happy to receive and acknowlege any specimens of rare seeds for the purpose of distributing among such as will make the most beneficial use of them for the public.

Our object is to make a work suited to every latitude and longitude of America, and for this purpose we shall give occasional essays on productions wholly or almost exclusively confined to the West and South, as Cotton, Sugar, Rice, Tobacco, Hemp, Indigo, Cochineal, Coffee, (Tea, if it can be raised,) Oranges, and Tropical Fruits. These, while occupying but a comparatively small space in our Journal, may afford our Southern subscribers what is difficult for them to obtain, yet essential to their prosperity; and at the same time, furnish our Northern readers with a useful and pleasant variety.

To enable us to do this in the most acceptable manner, we shall feel under great obligations to our Southern correspondents, if they will furnish us facts and details, the most minute and comprehensive, on all subjects connected with their peculiar products.

Our Northern friends will of course, greet us fully with all the information which may add to the general stock of knowledge. We design making our work a *thoroughly practical one*, and for this purpose we want facts on which to base every thing. We do not wish to amuse or occupy the valuable time of our readers with fine spun, unsubstantial theories, to befog and mislead them, when their minds require to be kept in the straight forward practical path of utility.

And for their own benefit, and without reference to any consideration beyond their own interest, we would here make a most important suggestion to them, and without a strict adherence to it under all circumstances, they cannot hope to make that progress in their pursuits that is perfectly within their reach. It is to observe accurately, and note carefully for future use and comparison, every circumstance connected with their seeds, crops, lands, animals, &c., &c. We have not time at the present moment to pursue this subject, but shall take an early opportunity hereafter to give our views in full upon it.

A word to our Correspondents. For the purpose of making every communication which may appear in our Journal as useful as possible to our readers, we would suggest a careful attention to the following particulars.

1°, In giving the weight of Animals, state their age; 2°, breed; 3°, quality of carcass if dead, or appearance and shape if alive; 4°, manner of feeding and treatment, mentioning especially any deviation from the ordinary course pursued in rearing or fattening them.

If Crops, specify 1°, the exact kind or variety; 2°, where the seed was obtained, and of whom; 3°, kind of soil; 4°, mode of culture, including a statement of the previous condition of the ground, kind and quantities of manure added, &c.

Our purpose is not to amuse so much as to interest, and to publish to our readers that such a person has raised an Ox, weighing 4000lbs. a Hog, 1500, or a Sheep, 200, or had sheared 16lbs of clean Wool, is to inform them simply of a monstrosity; but if we tell them at the same time, where they can procure such breeds, and how they may attain such weights, we place information in their hands, that will enable them to derive a practical benefit from the communication.

Selections in Seed, cannot too carefully be made by the farmer. There is freqently a difference in yield in a crop from one kind of seed, of one hundred per cent, over another from the same quality of land, and similar treatment. Every species of grain, roots, and grasses is subject to this difference of yield, without apparent cause.

Perhaps the best illustration of this principle is afforded in the Baden and Dutton Corn, which having been carefully cultivated for a series of years, and the most prolific and perfect ears annually selected for seed, have at last acquired a distinct character as most abundant yielders. We believe every kind of plant is susceptible of this improvement, and from the careful farmer we solicit a close observance of the following rules. 1°, Whenever good seed is to be obtained, procure it at any reasonable expense—*always get the best*; but by this, we do not mean the most costly, or even the fairest in appearance; but from such a stock as has been found to give large crops. And it is always important to have in view the selection from soils *inferior* in quality, or at least *not superior* to that on which you purpose planting. 2°, Whether you commence with choice or improved seed or not, in making selections from your own crops, carefully choose such portions of it as has produced the best and most perfect seed. If corn, take from the stalk which has the greatest number of ears, and those the largest and best filled. Seed corn procured from a more Northern latitude than that in which it is to be planted, is always to be preferred, as it will ripen earlier than more Southern seed. If wheat, barley, or rye, select such roots as send out the greatest number of stalks, and those furnishing the longest, best filled, and heaviest heads. If roots take such as are large, solid, and nutritious; not spongy or hollow, or strong, or unpleasant to the taste, not made up of coarse, woody fibre, or watery; and with smooth well-shaped surface. A selection is again to be made from the seeds of beets, carrots, turnips, &c., and these should be taken from the branches nearest the roots, and always the largest, fullest seeds should be preferred.

In selecting from pumpkins, and squashes, melons and other vines, always choose from perfect fruit, *as near the root as possible.* Such seed bears much fuller with less vines, than if taken nearer the ends, *and ripens very much earlier.*

Another rule to be observed, so far as is practicable, is a change of seed as often and from as great distance as possible. This practice added to the foregoing, has resulted in giving us some of the most noted and popular seeds. The Rohan potatoe, the Italian and Siberian wheat, and others, are doubtless indebted to these causes for all their popularity. When it is not convenient to procure seeds from a distance, an exchange with one's neighbours or from one lot to another on the same farm, and especially from one kind of soil to another will do better than no change at all. Caution should always be observed not to suffer the flowers of such plants as are designed for seed, to be near enough to others of the same species to allow of the mixing of the pollen or farina of different families; as for instance, the white and orange carrot; the pink eye and blue nose potatoe; the early sioux and sweet corn, or any other, as the effect is to give a blended or mongrel character to the products. This last practice, has become, in the hands of scientific, close observers, a prolific source of new and valuable varieties.

A constant and rigid observance of the foregoing rules, we are confident would be the means of largely increasing the crops of the country, and we cannot too earnestly enforce them on the attention of farmers. We shall resume this subject hereafter; and in the mean time we shall be pleased to have our friends communicate to us personally or by letter, the result of their experience in any way connected with the foregoing.

National Agricultural Society. We have perused with much pleasure the address of Hon. J. M. Garnett, President of the above Society, delivered in Washington, in Decr. last. We are glad to see this veteran in Agriculture at the head of this society. He is a thoroughly practical as well as theoretical farmer, and just the man for that post. His address is of the true national stamp of '76, and asserts most fully the true dignity and importance of Agriculture, and its great relative value in the scale of American employments. He fully asserts its just claims for acquirement, skill, and science, and the necessity of training our best talents for it, instead of crowding the professions with our young men.

The great influence a National Society will exert in binding our union in still closer and more effectual bonds, is strongly urged. The great utility of establishing agricultural schools, closes this truly patriotic address. We hope this is but the begining of good things in Washington on this subject.

We are highly gratified in looking over the importation of sheep and cattle, made by Messrs. Corning and Sotham, of Albany, a few days since, in the packet ship Hendrick Hudson, from London. But we regret to add that owing to the severe and almost unexampled gales, the ship encountered, the two choicest cattle, the Hereford bull, 'Major,' and the short horn cow, 'Cleopatra', died on the passage. They were both said to have been as good animals as England can produce. One short horn cow, 'Venus,' is a magnificent animal, and the bull calf 'Columbus,' a splendid fellow *of his days.* These are the only surviving cattle. They have also a few Leicesters, and thirty three

splendid Cotswold ewes, that will be hailed by the long wool and large mutton advocates, with unaffected delight. About one fourth of the flock were lost on the passage.

We hope our farmers will soon be enabled to furnish the tables of our bon vivants, with *English mutton*, and not force them to send to England for it at the rate of 25 cents per lb., as was recently paid in the Boston market. It is from the long wools and South Downs the large mutton is made, which frequently commands such extravagant prices.

TO THE BREEDERS OF DOMESTIC STOCK IN THE UNITED STATES. — As our great object is to discuss all questions relating to agricultural improvement in the spirit of candor and fairness, and to elicit such truths as will in practice attain the greatest utility; and knowing full well that in a country so extensive and diverse in its climates and soils as ours, various breeds of domestic stock are required for the different purposes and locations of the farmer, we invite the advocates of all the different varieties, to a full discussion of their several merits, in our paper.

Each party shall have a fair hearing, and every animal advocated, a candid judgment awarded them. We are the advocates of no one favorite race, as suited to all localities. We believe each is suited to some one peculiar position, and having conceded this in its broadest and most liberal sense, we shall be happy to treat all correspondents with the consideration due to their communications, in which they may discuss the merits of their different breeds. But we would most earnestly beg of them to give us the plain *unimbellished facts* on which they base their preferences, and establish the peculiar merits of their favorites. *Facts* are the main things to rely on; indeed, where experience is to be the guide, the only data we can or ought to base an opinion upon. All personal allusions we desire may be carefully avoided, as they tend neither to the dissemination of knowledge, or the attainment of that utility which we especially desire should be the result of the deliberations we offer to the public.

Free discussion in agriculture, as in politics, is the great highway to truth, and we invite it to its fullest extent; always reserving to ourselves, however, the privilege of judging the limit to which discussion may beneficially proceed, and making such notes or observations on whatever is written, as a due respect for the writer, and a regard to the true interests of the subject, may require.

With these remarks, we cordially invite the reflections of the stock breeders, graziers, and dairymen of the country, to our columns.

☞SUBSCRIBERS are particularly requested to write their Names, Post-office, County, and State in full, that there may be no mistake in the direction of their papers. They must also recollect orders must *invariably* be accompanied with the money, as the extremely low price at which we furnish the paper, will not allow of our sending it on credit in any instance.

The Ever-bearing Raspberry.

We have often remarked, that there are many indigenous productions existing in the varied soil and climate of the United States, that if brought to light and improved by cultivation, would not only add greatly to the comfort but to the wealth of society also and we hope through the work just commenced, to be enabled to contribute our mite in assisting to bring them before the public; and to enable us to do so most effectually we would recommend to our correspondents frequent trials, and systematic perseverance in the selection and cultivation of all plants in the least degree promising. Are there not trees, shrubs, grasses, plants, vegetables, and fruits, now existing unheeded, that show as fairly in their humble originals, as did the potatoe, when first discovered. How largely this single root now contributes to man's sustenance, we need not say. The population of Ireland receives probably one half its food in this highly improved and most excellent farinacious root.

In illustration of this remark, we introduce the letter of Mr. Carpenter below, thanking him heartily for the information it contains. It will be proper however, for us to add that all with whom we have conversed, do not agree with our respected correspondent in his remarks as to its flavor, but this may be owing to an unfitness in the season, or climate where it was produced. We know that the wild northern Raspberry is superior in juciness and flavor to that of the more southern regions; and from all that we can learn, the "Ever-bearing" would probably improve greatly by an introduction to more northern latitudes; and as it is very hardy, and rapidly and easily propagated, we recommend the lovers of good fruit to give it a trial. Now that a conservatory and green house are considered as necessary appendages to a gentlemans residence, why might it not be there introduced, and give him delicious fruit throughout the winter?

Mr. Ernst can supply it in any reasonable quantity from his fine nursery grounds at Cincinnati; and we presume it may be had in this vicinity, as cuttings have been repeatedly sent on here, through the well known liberality of Mr. Longworth; and we shall be happy if cultivated with success, to give the public information in our columns where it can be had east of the Alleganies.

Cincinnati, Jan. 1, 1842.

A. B. ALLEN, Esq.

Dear Sir,—The Ohio Ever-bearing Raspberry, was first discovered some fifteen years ago, in the northern part of this State, near Lake Erie, but in what particular part I am unable to say. Mr. Longworth of this city introduced it into his garden in 1832. It has been little known here, however, until within the last two years, but there is now great effort made by our gardeners to cultivate it for this market. The fruit resembles the wild native black raspberry but is much larger, more

fleshy, and of a much finer flavor, and is also a very profuse bearer.

In this climate, the wood of the previous year's growth bears one crop in June, after which it soon dies, the young shoots then come into bearing, and continue doing so into October, till the frost cuts them off, when you will see buds and blossoms, and the fruit in every stage from green up to full ripe on the bush, stayed by the hoary hand of nature in the midst of their productiveness. The fruit is preferred by many to the red Antwerp, and with its large erect clusters of flowers, presents a beautiful appearance.

To propagate it, in the month of September you turn the ends of the young shoots to the ground, and slightly cover them over, and they will immediately take root. The best shoots for this purpose are those that have not borne fruit, or are about to flower. In the spring you cut these shoots off within a foot or two of the ground, and they can then be transplanted, and will shoot forward with great rapidity, growing of course from the butt end up. They will also propagate themselves in this way, the shoots rising up three feet or more, and then gracefully bending over like the branches of a weeping willow, till they reach the ground; their prongs at the end, then easily insert themselves when it is soft and open, and find root, but as covering them slightly is only the work of a moment, this is considered safest and best, and ensures a selection of the choicest shoots to propagate from. They will also grow from the seed sown in September.

Respectfully yours,
EZRA CARPENTER.

CHEAP FOOD AND PLENTY OF IT FOR THE STARVING POOR OF EUROPE.—While at the West, we noted the following prices at the Pork Packing Houses:—Pigs heads, neatly dressed, with large fat jowles, and weighing on he average at least sixteen pounds per head, 8 cents each, which is about one farthing sterling per pound. The best of spareribs at the same price. Sausage meat cut from the backs and bellies of the nicely dressed animals, one halfpenny sterling per pound; and pigs feet, that make the best of souse, in any quantity, for the *trouble of taking them away;* and the trimmings of lard, and the heart and liver, as poor people here will not eat them, the proprietors of slaughter houses are obliged to hire carted from their premises, to be thrown away!

TO PREVENT DEPREDATIONS BY HAWKS.—One or more Guinea hens in a flock of fowls it is said will effectually prevent molestation from hawks.

☞ In answer to several inquiries on the subject, we reply, that the senior editor of this paper, A. B. Allen, will be in this city after the 16th of May next, and will then attend to executing any orders for the purchase of farming stock, implements of husbandry, roots, seeds, fruit trees, books. engravings, &c., at a moderate commission. His long acquaintance with these matters, will ensure a good selection, if made personally in this country, and his correspondents abroad, will enable him to execute orders in Europe through agents there, for any of the above. The constant intercourse enjoyed in this city, through its packets and otherwise, not only with every portion of the United States, but with every part of Europe also, afford great facilities for filling immediately, any orders that may be sent. They must, however, *be invariably accompanied by the money.* Until the time above mentioned, he may be addressed at Cincinnati, Ohio.

To guard Sheep from being killed by Dogs.

PERHAPS one of the greatest obstacles to the keeping of sheep, has been the savage destruction made among them by worthless curs kept throughout our country, for no other reason that we could ever imagine, than to gratify the fancy of their owners. If these animals were kept constantly chained up where they could do no harm, no fault would be found; but when suffered to run at large and become public destroyers, it is quite another affair, and we hold every one justifiable, nay, a positive duty on their parts, to shoot all dog prowlers, without any more hesitation than they would a mad wolf.

The importation of the large Spanish shepherd dog has been recommended, as he will invariably attack and kill any dog that approaches his flock, but this would be an expensive and troublesome measure, and it would take a long while to breed a sufficient number of them here, before they could become generally effectual. During our recent visit to Kentucky, we learned a very simple, and at the same time profitable way of guarding sheep, which is this:—

Put a few active cows, with their sucking calves, in the same pasture with the flock—five would probably be enough for several hundred sheep, to which add five active three year old steers, and as many more two year olds. Take a gentle dog into the field, with a long light cord about his neck, the end held in the persons hand accompanying, to keep him in check, and then set him on to the sheep. The cows, thinking of their offspring, will immediately advance to head the dog and guard the calves,

the steers will follow their example, and the sheep retreat behind them. Thus continue a few times, till the steers are well broke in, when the cows can be taken away, and they will inevitably gore any dog to death that dare persist in attacking the flock. However brave a dog may be in other matters, the moment he attacks sheep, he seems to be conscious of the ignominy of it, and as if conscience stricken, becomes a coward, and will run at the slightest approach from other animals.

When steers arrive at the age of four years, it is generally requisite to remove them to better pasture than is required for sheep, for the purpose of fatting, or they are wanted for the yoke. But just before this is done, add as many two year olds as you wish to remove of the older ones, and the three year olds left, will soon break in the young ones, and so the system can be annually kept up as long as requisite.

For these guards, we would recommend a small active race of animals, with sharp horns, as they would more effectually gore and toss a dog, and it will require a small active animal to support itself on feed, that is generally as short as sheep pastures usually are. The hardy red cattle of New England would be admirable for this purpose, or indeed any active native animals, those chosen from the hill or mountainous districts would be best, as more fleet and pugnacious when required. We are told by hunters, that it is thus the wild buffalo protects himself, on the vast plains of the West, from the attacks of savage bands of wolves, and they not unfrequently afford protection to whole herds of deer. Mr. Hart of Kentucky defended the deer in his park by the elk, a single pair of which, would be sufficient to guard hundreds of them, as they would run down the fiercest dog in a few minutes, and cut him in two by perhaps a single stroke of the sharp hoofs of their fore feet.

Geology applied to Agriculture.

Among the subjects claiming the attention of farmers, after an intimate knowledge of the direct process of planting and securing their crops, and the proper application of the ordinary manures, and the raising and maturing of their farm stock, we would place a general and familiar knowledge of Geology. And the reason of it is perfectly obvious. In its general character it embraces, not only the solid structure of our globe, its vast and almost illimitable ranges of rocks, the sterile mountains and barren deserts, but it comes home to every farmers own business. Every portion of the soil he cultivates, the materials of his manures, and all the constituent portions of his vegetable products –yes, and of his animals also, in other combinations, are the legitimate subject of the Geologist. A knowledge of these materials, and their combinations, their existence in the various soils that may be subject to his cultivation, the character of the stimulants and manures, (other than animal and vegetable,) such as lime, peat, marl, gypsum, &c., necessary to enable him to afford the greatest crops; all these are not merely instructing to the man of science, but are directly and highly beneficial to the practical husbandman.

In the furtherance of a taste for geological information and the means of affording it, to say nothing of the great and important discoveries of mines and quarries and salt springs; and beds of gypsum, marl, peat, and coal; we conceive the State Geological Surveys have done more for the benefit of the farming interest, than the expenditure of the same amount of money in any other way whatever. In corroboration of the practical bearing of this subject, we subjoin some observations from one who is high authority in this department of science.

Extract from Professor Johnson's lecture on Geology as applied to Agriculture.

"From the detritus of certain rocks, we find clay, lime, and sand mixed, constituting a soil best fitted for growing crops. The soil performs various functions in regard to vegetation, one very important one to which I will allude. If you burn a tree, a certain portion of ash is obtained, or take any vegetable matter whatever and burn it, a certain quantity of ash is left containing various substances—potash, soda, and silicious matter. These substances are all derived from the soil. Now, observe if a plant contains lime, it cannot grow upon sand; if potash, it cannot grow upon lime; thus a fertile soil must contain soda and potash, and, among other important substances, also phosphate of lime. Geology tells us in what rocks the soda, and potash, and phosphate of lime exist; and it tells us what we are to add in any case, or which of all these ingredients are requisite to form a soil. In the common farm yard manure you add all the ingredients required, potash, soda, and lime. All vegetable substances contain a certain quantity of phosphate of lime; now, all animals are fed upon grass, and their bones contain a certain quantity of phosphate of lime, and this must be derived from the soil. Geologists have found animals of a former age embedded in the solid rock. Bones have been found in large quantities; and if you suppose one clay rock contained a large quantity of the bones of these animals, you are enabled to conclude that the earth of bones will not be wanting in the soil that is formed from it. Without them, animals can neither be nourished nor grow. And here we have reason shown why some soils that are apparently as good as others, should not be capable of producing good herbage equally capable of fattening cattle, and increasing their size, with rocks, which, among other substances, contain the phosphate in sufficient abundance. In some remote period of time all rocks that occur in masses have been melted and thrown up in their present state; they are in fact *lava*, and their capability of being melted, arises chiefly from their containing potash

and soda. Certain plants cannot grow without potash and soda; and hence it is that the soils formed by the crumbling down of these rocks, are more fertile than others. The water trickling down, carries the soda and potash along with it, and thus enable soils to sustain vegetation, which it otherwise would not have been able to do. Certain sand stones, the red, for instance, are full of the particles of these unstratafied rocks. Great layers of shining little particles are discovered, which are known by the name of *mica*, which renders it susceptible of very remarkable applications. In some cases it occurs in the form of a rock in thin layers, and when this mass is taken out and exposed to the air, it crumbles into fine powder, and is full of these particles. Chemists have shewn this mica contains a considerable quantity of potash, and when applied to grass lands, it forms a most important top dressing, increasing the growth of the grass. In Zealand and Sweden, the Beech tree grows luxuriantly, and this is attributed to the mica in the soil. The most natural application to land is the farm yard manure, but when this cannot be obtained, some other manure must be had recourse to. In some regions destitute of lime and requiring manure, where there is nothing but slate, granite, and some magnesia rocks available, I have recommended crushing the granite to a powder and applying it in a finely comminuted state as a top dressing, believing it will prove a beneficial application, as containing so many of these substances which the land requires before it can grow vegetables."

The constituent principles of these intractable, and so far as vegetation is concerned, apparently useless appendages to a soil, the rocks that surround, and the loose stones that sometimes abound in it, have been found on analysis by chemists, to afford several of the constituent principles of vegetation, without which, hey can live but a short time, and can never afford the full and matured fruits which are the objects of their cultivation. The whole mass of soils, and the loose earth, and drifting sands, that constitute so large a portion of the surface of our globe, is very properly supposed by geologists to have once constituted solid rock, but which the various causes heretofore and now operating, have converted into their present condition. But of these changes it is not our purpose now to speak, our intention being simply to reiterate and further illustrate the fact above stated by Prof. Johnson, that many of them abound in those principles, essential to the fertility of soils. It is found for instance, that the mica above mentioned, which is an important fossil from its very extensive distribution as an ingredient in granite, mica slate, and other aggregate rocks; consists of silex, 46·3; alumina, 36·8; oxide of iron, 4·5; potash 9·2; fluoric acid, 1·8. Here we have nearly one-tenth of the entire mass pure potash, one of the most stimulating and valuable manures, and of the silex and alumina nearly one half is pure oxygen, a large and essential ingredient of every vegetable. This, however, is yielded up only under peculiar circumstances. Pinite, considerably diffused, is nearly identical with mica, wanting only its fluoric acid.

Feldspar, another fossil extensively pervading the globe, being next to quartz and oxide of iron, the most abundant of minerals, and constituting a large portion of Granite, is composed of silex, 66; alumina, 17; potash, 12; with the addition of a little lime and iron.

Some varieties of clay slate or argillaceous slate afford potash, and nearly all the clays afford some lime.

Jade or Nepheitic stone contains about *eight per cent of potash.*

Elaolite or Fettstein has *sixteen to eighteen per cent of potash.*

Lazulite or Lapis Lazuli, the beautiful azure stone used for Mosaic work, the powder of which affords the paint known as ultramarine, exceeding all other pigments in beauty and durability, according to one analysis, affords carbonate of lime, (common limestone,) and sulphate of lime, (Plaster of Paris.)

Haune, another beautiful mineral, of a sky blue color, affords fifteen per cent of potash.

Leucite affords twenty-one per cent of potash.

Soda, so essential to productive soils, exists in many of the minerals.

The almost universal dissemination of common limestone, and the extensive, though less generally diffused sulphate of lime, or gypsum, is well known, which, by their almost imperceptible decomposition, afford stimulus and nutrition to the growing vegetation.

Thus it will be seen that Geology, but a few years since considered as an abstruse science, or at least as in no degree connected with agriculture, is by subsequent developments, shown to have a direct and intimate connection with it. The experience of every farmer, shows him the great benefit derived from the application of ashes as a manure; and these are but the *earthy parts* of the plants which have been derived in the last instance from the soils but remotely from the rocks. They are principles as essential to the sustenance of plants, and constituting as necessary portions of them, as the carbon, oxygen and hydrogen, which furnish the nutrition to animals consuming them. Thus, Prof. Johnson, in his Chemical Agriculture, has shown that the ashes of the following articles, after being dried at a temperature of 230° Fahrenhite, being a heat above that of boiling water, constituted of oats, 4 per cent; clover seed, 3; peas, 3; wheat, 2½; potatoes, 15; hay, 10 per cent.

The above are some of the facts essential to the scientific farmer, which under certain circumstances may have an important bearing on his practical operations.

Illumination in the West.—Already, from the aid chemistry has afforded to agriculture, has the West begun to turn their productions into new and more profitable forms than have been heretofore given them. Tallow and lard are subjected to a great pressure, by which the fat is separated into two principles, one a pure oil liquid at all times and equal to "winter strained;" and another, a compact firm matter, analogous to, and said to be equal to spermaceti. Oil is also furnished of the finest quality from corn; and from castor oil, abundantly produced there, "the best sperm candles" are manufactured.

TO OUR READERS.

In communicating as we shall often do to our readers, narrative memoranda in the form of tours, journeys, &c., connected with instructive remarks and observations on whatever Agricultural subjects and its kindred associations come under our eye, we have thought it a pleasanter method of diversifying our information, and thus occasionally make it more agreeable than in the graver and possibly duller style of the mere essay. In all such papers however, we shall confine ourselves closely to Agricultural subjects, and incidents connected with them; hoping by these means to give as great interest to our work as in any other manner.

Agricultural Tour in England. No. I.

LONDON, RAIL-ROAD, COUNTRY SCENERY, ENGLISH FARMERS, BIRMINGHAM, MANCHESTER, LIVERPOOL, MEETING OF THE ROYAL AGRICULTURAL SOCIETY.

It was on the morning of the 18th of July, that we found ourselves at the magnificent Rail-road depot, fronting with its noble pillared portico on Drummond-street, and taking our tickets, were soon snugly ensconced in comfortable seats in the cars. Punctual to the hour, nine o'clock, the coach doors were locked, the signal was given, and away we sped. As this letter will be sufficiently long without it, we shall, in some future number, describe the solid Rail-roads of England, and their superb appurtenances; suffice it to say now, therefore, that our pace the whole way was nearly that of the flight of a strong bird, averaging full twenty five miles the hour. The air was damp and chill, but flushed with excitement and the novelty of the scene before us, and wrapped up in thick Macintoshes, we heeded it not, but at once set ourselves with even more than a stranger's privilege, to staring on every side with all our might.

Regent's Canal and Park were soon passed, and as we neared Primrose hill, casting a lingeringing look behind, the mighty city of London appeared but a huge mass of buildings at the west end, shrouded beyond in a dim impenetrable cloud of mist and smoke. We had scarcely made this observation, when the shrill unearthly shriek of the engineer's whistle thrilled in our ears, as the advance warning of our coming, and into a cold, damp, dark, caverned tunnel, of about three-fourths of a mile in length, the engine dashed with its fiery lightening mouth, followed by a long train of cars with a loud reverberating noise like continued rolling thunder. What an entrance thought we, to grim old Pluto's dark domain.

But from this we soon emerged, and then came a country of gentle hill and dale, the rural beauty of which, must be seen to be appreciated. Though the Rail-road was comparatively of recent construction, nearly all newness was obliterated. In the deep cuts, unless through ledges of rock, the banks were obliquely graded and overlaid with sod of the deepest verdure, and along the edges of the road were stone faced ditches for the water to run off, the embankments again were neatly sloped from the iron rails, and planted with a variety of deciduous and evergreen trees of a dwarfish growth, while all along the line rose the thick hedge, now nicely trimed and plashed, and anon left to flourish in all its natural beauty and wildness. Hedges and ditches also divided the different fields that we were continually passing, some of hawthorn, gorse, or holly alone, others with rows of trees interspersed, and together with now and then a park, and thick plantings of some rugged, and otherwise barren hill side, greatly relieved the aspect of the country from anything like the monotony of a too general cultivation.

The cottages, farm houses, barns, and outbuildings were of brick or stone, generally old and antiquated in appearance, but at the same time neat and substantial, with thatched and tiled roofs, now and then one of a more modern erection of slate, and all with a soft grass plot, or garden around, kept in the nicest manner and the ivy, the honeysuckle, or rose tree, trimmed up the walls, giving beauty and loveliness even to the humblest peasant's tenement. We saw little of the towns and villages, saving their red tiled roofs, as we usually passed them at a distance, or only on their outskirts, but at the various stations on the road, others of a plain modern architecture are fast springing up, all substantial, and as soon as completed, if a foot of ground will admit of it, enshrouded in shrubbery. The old embattled church peeping out from embowered trees, with its square grey tower, gothic minarets, or pointed steeple was not wanting in the landscape, while frequently rose to view the massive aristocratic hall or castle, with their extended parks or preserves, dotted with deer, and filled with wild game.

It was in the midst of hay harvest, and scores of women and girls neatly clad, and with wide bonnets, were following the mowers, spreading the grass, or raking up such as was sufficiently dry to be stacked. The grain crops waved thickly and abundant, the earliest of which were just begining to ripen, potatoes were mostly in flower, some of the turnips had been once hoed, others again were peeping from the ground, while later fields were ploughing and manuring still to be sown. A few horses were out grazing, but large flocks of sheep and herds of cattle were most abundant. Nearer London the South-downs were most abundant, but further on, and especially as the lands grew heavier

and stronger, the Leicester predominated. The horned beasts were various, embracing as with us all sorts and colors, but among the more particular graziers, high crosses of the Durham, the pure Hereford, and Devon and Scotch black cattle were prefered.

At the different stations, we were constantly taking up stout ruddy faced farmers, in neat drab gaiters or white top boots, all bound for the Liverpool show. Their conversation was about their own affairs, cattle, crops, weather, corn-laws, and politics, and on this subject we found them nearly all Tories. As the track is double, to add a little more variety to the scene, we met long trains of passenger coaches bound up, shooting by us like a rocket, and in the rear, open cars filled with sheep, pigs, and poultry, and covered cars of all sorts of merchandise for the London market. Thus passed four hours or a little more, when Birmingham, a full hundred miles from London, hove in sight, filled with its numerous manufacturing chimneys, rising like so many shot towers from eighty to perhaps one hundred and seventy feet high, and belching forth huge columns of smoke, completely enveloping the town.

After dispatching a hasty meal, we determined to make use of our brief stay here, in seeing what we could of the great *Brummagem* button manufactory, but we had proceeded only a short distance up one of the principal streets, when the high wind saluted us with such a volume of dust, gas, and coal smoke, that we were literally choked, and had to wheel round and gasp for breath. This we found would never do, so calling a cab, the driver of which, respectfully touching his hat, professing to be up to all the *lions* of the place, "could show the gem'en the town 'all, where vos the most hextror'ny horgan in the vurld, as halso the Woxall, as halso." He was going on to repeat with great volubility, when we cut him short by saying, that he might let us see first, and then talk afterwards.

To one who for the last fortnight had been rambling in her paradises of parks, and the spacious and magnificent streets of the west-end of London, Birmingham would appear but a tame place indeed; its buildings, however, are mostly good and substantial, and some of the public edifices and churches worthy of commendation. Of these last, Trinity Chapel in the pointed style pleased us most; we also admired the Free Grammar School, which was built at an expense of 40,000*l*. The Town Hall is erected after the manner of a Roman Temple. It rises from a lofty basement, and is adorned with fluted columns, being two hundred and sixty six feet by one hundred and four, and eighty three high, two-thirds or more of these dimensions within, constitutes a noble saloon, where the great National musical festivals are held. The organ is one of the largest in Europe, and certainly a meeting here by the musical elite of the world, must be something worth attending. Missionary and other public meetings are also held here, and we think the room admirably adapted to the purposes for which it was formed. From thence we proceeded to some of the show rooms of the great manufacturers, the displays of which were rich and varied, and glad enough were we, that no ladies were of our party to admire with us, or our purses might have been lightened rather more than a sober afterthought would have found satisfactory. The model in bronze of the famous Warwick vase is wonderful, the original being a *chef d'ouvre* of Grecian art, it holds one hundred and sixty three gallons.

"Now Cabman, you have shewn us the best of the town, we have heard much of the misery of manufacturing places, pray let us next see the worst."

"The gem'en bees from Lun'un?"

"Yes."

"Then, said he, with a crack of his whip, and knowing nod of his head, "weze beat St. Giles and Vapping,* and gives um twenty."

We thought if he could, he must be a genius so mounting below and he aloft away we whirled. We soon plunged into narrow filthy lanes, where every other tenement was a grogery, and certainly such squalid misery as we there saw, we think London would find it difficult to match, and we emerged from it overcome, faint, and heart sick at the disgusting wretchedness that we there beheld, and yet we believe that *intemperance* was the main cause of all.

We had quite enough now of a manufacturing town, and were again glad to be careering over the fresh green country, although the road was leading to Manchester, another of England's huge workshops. Along the borders of Lancashire, miserable peaty wastes intervened, more or less overflowed by the branches of the Mersey, and what soil was under cultivation! Along our route was a hard and almost barren clay; it was principally in grass, and patches of oats and potatoes, the latter crop being cultivated by the poor manufacturing population of the country, and but a sad return they must have got for their labor. So tenacious and wet was the soil, that trenches of eighteen inches or two feet wide, and of a corresponding depth were cut by the spade every three to nine feet, and the excavations from them thrown into the middle of their narrow lands, in order to round

* St. Giles and Wapping in London, are the Five Points and Corlaers Hook of New York.

them up a little and keep them dry. Our farming fellow passengers shook their heads at sight of this, and involuntarily exclaimed, "God help such tenants, their crops can never pay!" For our part, we inwardly groaned over their condition, and only regretted that we could not at once transfer them to our own country, where their labor on a rich dry virgin soil, would be so abundantly repaid. Would that we could see about two hundred thousand hearty Englishmen and women annually brought over to America. Both countries would be greatly the gainers thereby, England only losing that which she cannot profitably employ, while America would be obtaining what she could. Surely this is a subject of national consideration, and we think it would be no less wise than considerate on the part of our Government, to take more effective measures than it now does, in the increase of a worthy and industrious emigration.

We pass over Manchester, it being but a second edition of Birmingham without any improvements, merely substituting cotton manufactures for those of hardware and plated and fancy articles. It has many noble buildings, with bridges, canals, viaducts, and rail-ways, the usual number of huge high round chimneys springing from the ground, and malt houses seven stories high. The population of Manchester and Birmingham with their environs, is about three hundred thousand each. But a drizzling rain prevailed all the time we were there, and the coal smoke and fog were so thick that glad were we to escape from the town, to pass the day with our friends at S—— Park, where we found a cluster of charming cottages, belted in from the wide world by masses of trees, and surrounded by velvet turf, and gardens adorned with flowers and shrubbery. Beyond this as the mist occasionally broke away, was a view of a fine old park, and wide extent of country, bounded at a great distance by high ranges of the Welsh mountains. It was a happy day and night to us, and with a sad heart we bid adieu next morning, and started for Liverpool.

The thermometer was certainly as low as 56°; the wind blew in tempestuous squalls, and as we crossed the Chat Moss, masses of clouds of an almost inky blackness rode frowning over the heavens, discharging torrents of rain. The dreary heath spread out as far as we could see in the thick gloom, and harmonised admirably with the roaring tempest and dark clouds above, and we dont know when we have seen anything more sublime, except a wild hurricane at sea. It was a place, a time, and a storm worthy the meeting of Shakspeare's witches in Macbeth, and we could easily fancy hearing borne on the howling wind, the words of the unearthly song of the Weird Sisters:

"Foul was fair, and fair was foul."

We never wish to pass the dreary waste of the Chat Moss in any other weather than this; and hope our next fortune will be the addition of thunder and lightning, accompanied by the darkness and obscurity of a murky night.

One cannot but admire the industry and energy of this country, for here, on this watery, black, barren heath, have they commenced their work. A wide lateral ditch is cut to carry off the water from this, every few rods in width, narrower ones run off at right angles up the wide waste, while every half mile or so, thick belts of evergreen trees are planted to break off the winds; when this is done, commences cultivation. The soil seems to be a rich vegetable mould, and on it thus reclaimed. we noticed luxuriant crops of grass, grain, and roots. We never looked upon anything with more interest, and most gladly would we have stopped a day, had our engagements permitted, to examine minutely this beautiful transformation. As it was, we could only say in rapidly passing, "glory to old England for her indomitable energy."

A pleasant country soon followed in a high state of cultivation, and occasionally beautifully adorned, but on almost every side rose the shot tower like manufacturing chimneys, one of which is a land mark to a great distance, rising about two hundred and fifty feet high, and said to be the tallest in the kingdom. We stopped a few moments at the place where the lamented Huskinson met his death, when this rail-road was first opened. A plain marble slab niched in the wall, briefly announces the fact.

Again we started, and after a short space we entered a long dark tunnel, and emerging from this found ourselves at Liverpool.

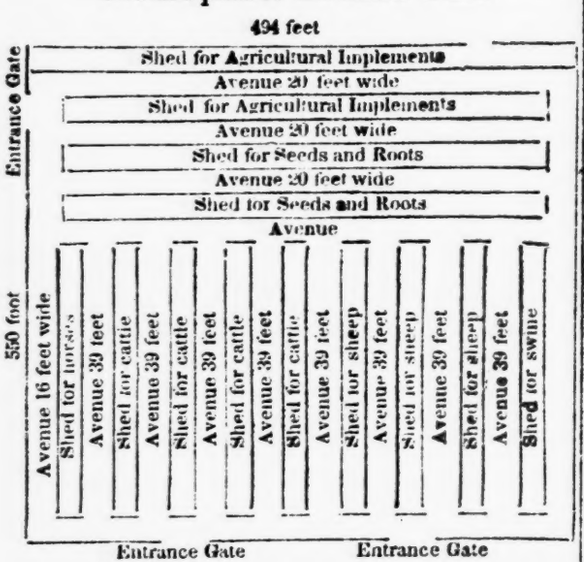
The town was overflowing with strangers, and not a bed at a Hotel or Inn to be had, and after a long perambulation, we considered ourselves fortunate in securing a resting place, at half-a-guinea each per night. As we were too late for the plowing match some six miles out, we thought no more of that, but commenced immediately looking over the town.

The commerce of Liverpool is the second in the world, being inferior only to that of London. It is a large well built place, but little smaller than New York. Its public buildings, however, are much more numerous and magnificent. Among these the most worthy of note, are the Custom House and Post-office, the Rialto, arching three sides of an open and beautifully flagged square of about two hundred feet, in the centre of which, is a noble monument to Nelson; the Town Hall, the Corn Exchange, and the great Market in Charlotte street, nine hundred and fifteen feet long. The

Mersey seemed about the fourth of a mile wide, is a muddy stream, the tides rising some thirty feet, and was alive with steam vessels, ships, and all sorts of small craft. The docks, both wet and dry, are of immense extent, and surrounded by lofty rows of warehouses. Some of the churches are a beautiful gothic, and the Cemetery of St. James is a rural gem in its way, being a deep extensive rocky excavation, in the heart of the city, from which the stone was mostly quarried to build the town. It is laid out with great taste in grass plots, ornamented with tombs, grottoes, winding walks, flowers, shrubbery, and trees, and so completely retired from the world, that it would almost seem a pleasant thing to die, and be buried there. In the centre of this Cemetery, the remains of Mr. Huskinson lie interred, and over them on a rustic basement, a tasteful circular building, with Corinthian columns, is raised, enclosing a fine white marble statue of seven feet nine in height, in the dress of a Roman Senator, and holding a scroll in the hand. We thought it no less beautiful than appropriate. Its cost was about 3,000*l.*

The Royal Agricultural show ground was a large square, four hundred and ninety four by five hundred and fifty feet, in the outskirts of Liverpool, fenced in with a high close board fence, made especially for this occasion. We think the arrangments admirable, and subjoin a rough ground plan, and also a partial view of the stock yard.

Ground plan of the Show Yard.



The first day of the show, a temporary fence divided the stock part of the yard from that of implements, seeds, &c., so that the judges of cattle should be undisturbed by the public, and though many of the best implements were out at the plowing match in trial, the tickets for seeing this part alone were charged 5 shillings, ($1 10,) which was altogether too much. The second day the temporary fence was removed, and all was thrown open to the public for tickets at 2s. 6d. each. The third day admission was obtained for 1s., and the fourth, which was the day of sale, the same, and we think this would have been ample for admission throughout every day of the show.* A board card about eighteen inches square, was hung up over the head of each animal, specifying its number, breed, age, owner's name, and if it had taken a prize, which, and the amount of the same in sovereigns. This at once told its story, and saved the asking a thousand questions. Printed catalogues in addition, were for sale, refering to all the animals, with numbers, as also seeds, roots, implements, &c.

The show was not as great as was anticipated, open as it is to the whole world, but the cold wet, untoward weather, and the epidemic that had been prevailing for some time among all kinds of stock, we were told were the reasons for this, yet about five hundered animals were present, and it proved to us a highly gratifying sight.

Class I.

Short Horns, 66 entries, 100 sovereigns in prizes. (nearly $500.) Messrs. Bates, Booth, Forest, and Etches were the successful competitors.

Class II.

Herefords, 27 entries, 100 sovereigns. Earl Talbot, Sir Hungerford Hoskyns, Messrs. Morris and Walker.

Class III.

Devons, 8 entries, 65 sovereigns. Messrs. Gibbs, Umbers, and Turner.

Class IV.

Any breed not qualified to compete in the foregoing classes, 13 entries, 145 sovereigns. These were nearly all Sussex, two of the old long-horned breed, a Wyersdah cow, a Scotch black Galloway or two, and various crosses of the short-horn.

Messrs. King, Daniel, Stace, Ellman, Ellison, Woolf, and Heywood.

Class V.

Cart Horses, 19 entries, 105 sovereigns. Earl Talbot, Earl of Derby, Mr. Crisp.

Class VI.

Leicester Sheep, 52 entries, 110 sovereigns. Earl Talbot, Messrs. Bennett and Inskip.

Class VII.

South Down Sheep, 36 entries, 100 sovs. All of which was awarded to Mr Jonas Webb, except one of 10 sovs. to Mr. Grantham, for the second best Ram.

* This difference of price, however, is made to allow such as are willing to go in undisturbed by the *crowd*, who are kept in abeyance for the lower price.

Class VIII.

Sheep not qualified to compete in the foregoing classes, 26 entries, 115 sovereigns. Messrs. Large, Hewer, Smith, and Wells.

Class IX.

Swine, 14 entries, 30 sovereigns. Messrs. Barnard, Umbers, Dawson, and Higgins.

Besides these, there was a good deal of what was called *extra* stock, that could not compete for prizes, because entered too late, and when we mention the number of entries, it means only the persons making them, and not the number of animals, for these would amount, especially among the sheep and swine, to a dozen perhaps, under a single name.

Earl Derby, Messrs. Kendell and Hegan, each shewed a pen of Alpacas, the tall, graceful South American Sheep, of the Andes, producing wool twelve inches or more in length, and very fine and silky. There were also some of the East Indian Bramin Cattle present, and their crosses on the Alderney, but they were without particular utility, and worthy of notice only as objects of curiosity.

The show of seeds, grapes, and roots was quite respectable. One person presenting at least thirty varieties of wheat. The prize for the best kind, the Belle Vue Talavera, was awarded to Col. Le Couteur. He used three bushels of seed to the acre, and obtained a product of forty seven bushels.

A very extensive assortment of Agricultural implements were on the ground, ploughs, harrows, drills, scarifiers, threshing machines, hay rakes, &c. They were of high finish, of the best material, and more strongly and thoroughly made than is usual with us, but they were much more complex in construction, heavy, unwieldly, and needlessly cumbersome and expensive, and although we saw nothing that we could particularly recommend, as a whole, to be adopted in America, still an Agricultural mechanic, could not but on inspection, acquire some good ideas from the implements present, and it might be well worth his while, to take a trip across the Atlantic to do so. A cheese turner, however, exhibited there, would be worthy of introduction, it admirably suiting small as well as large dairies. The one present had eleven shelves, with room for five cheeses on a shelf, and by a single revolution, would turn the whole fifty five in a minute. The inventor stated, that he could turn five hundred cheeses in seven minutes, arranged on such shelves; we shall hereafter give a drawing of it. We think it unnecessary to report the prizes given for implements, and the plowing matches, and in addition to these, prizes were awarded of from 10 to 50 sovs., for written essays on various subjects, such as the best method of applying Lime, improvement of Soils, Agricultural Mechanics, early spring feed, &c. &c., which, together with other communications, are published in the Journal of the Royal Society. We may be permitted here to add, that we consider this the ablest Agricultural periodical in existence.

We were informed that the number of persons visiting the show yard during the four days of meeting were about thirty thousand. Among these we saw elegant and beautiful women in crowds, with catalogues in hand inspecting every thing, and making their comments like veritable connoissieurs. Distinguished noblemen and gentlemen were present, dressed in plain farmer-like clothes, the cuffs of their coat sleeves turned up, and handling and inspecting the stock with as much critical nicety, as the most thorough going graziers and breeders. To us, the stout, hearty, ruddy-faced people present, were of themselves a very interesting show. We have been something of a traveller in our day, and seen many congregations of men, but upon the whole, do not hesitate to say, that so far as physical condition and good healthy looks are concerned, the farming collection at Liverpool, was the finest body of people that we ever viewed asembled together. Tickets to the dinner were a sovereign each, it was a grand affair, and held beneath a pavilion, the tables rising in amphitheatre form, from a common center. About three thousand persons sat down, Mr. Pusey, the president of the society presiding. The toasts were drunk with loud repeated cheers and hurrahs. Some of the speeches were very good, but generally too long and complimentary, and in many passages, downright fulsome. How the objects of such flattery could listen to them without being confused, we were at a loss to determine, but it seems the way in this country, and we suppose that they took it as a matter of course.

The Royal Agricultural Society of England is in a high state of prosperity, it numbers now about six thousand members, (two thousand of which have been added the past year,) the annual subscription is one sovereign each, this with the receipts from the show yard, and donations from wealthy members, makes a large income to expend annually in premiums. We look upon it as one of the noblest and most exalted institutions. Its aim is to cheapen, and perfect, and multiply the prime necessities of life, and to attain this object, the talents, the learning, and the wealth of Great Britain are lavishly bestowed, and the return for all these, we venture to say will be a thousand fold. We hope soon to see this liberality imitated in all its best features, by an American National Agricultural Society. What comforts, what intelligence, what happiness might it not be the means of introducing

among us; let every lover of his country then, and of his species, arouse to the establishment of this, together with State and County auxiliaries throughout the land.

ORIGINAL CORRESPONDENCE.

We must acknowledge our indebtedness to our friends, for the correspondence they have so liberally proffered us for the public, in this first number. We shall be happy at all times to give place in our columns, to all well written communications on the subjects to which this paper is devoted.

Something about Western Prairies.

BY SOLON ROBINSON.

To the Editor of the American Agriculturist.

In addition to your note, suggesting that eastern readers are ever anxious to learn facts about the "great West," I have received a great number of inquiries, some of which I will answer through your columns.

And although the matter may not be altogether upon the science of agriculture, it may be such as will induce scientific reading, in the contents of agricultural journals.

In my late tour through the Eastern States, how often I heard the exclamation, "I do wish I could see a prairie!" "How do they look?" "Ah, well! I shouldn't like to live on one, they are *so level.*" "An't it very troublesome getting about through the tall grass?" "How do you plough them?"

Notwithstanding that others, as well as myself, have often, both publicly and privately, answered these and many other similar questions, "the demand is increasing," and the public are "like as two peas," to my little children, with their, "do now father, tell that story again."

In the first place then, my dear reader, I also wish you could see a prairie. You would feel as you never felt before. You would feel as I once did, when for the first time I stood upon the edge of the prairie upon which I now reside. "It was about noon of a beautiful October day, when we emerged from the wood, and for miles around stretched forth one broad expanse of clear, open land. I stood alone, wrapt up in that peculiar sensation that man only feels when beholding a broad rolling prairie for the first time—an indescribable delightful feeling. Oh, what a rich mine of wealth lay outstretched before me."

And although that was seven years ago, yet almost the whole of that mine of wealth still holds its hidden and unsought for treasures. No plough or spade has broken the sod of ages; no magician has appeared with the husbandman's magic wand and said to the coarse and useless grass that has grown for centuries, "Presto, be gone," give place to the lovely Ceres with her golden sheaves.

And here, methinks I hear some reader exclaim, "Well now, I guess it an't so plaguy rich a'ter all, or it would'nt lay there uncultivated." Little does he know or think as he digs in the corn among the stones of New England, what vast quantities of such land lie waste in the West, and how few there are there to improve them; and what is worse, how indolent a great portion of that few are. Talk of the country being sickly, why the worst epidemic that ever raged in any country, is that idleness which fixes itself, incubus like, upon the whole population of an extraordinary fertile soil.

I am sorry that I am not able to answer the second question, even satisfactorily to myself. But who that ever undertook, ever satisfied his inquirers as to how a prairie looks, while in a state of nature. The reason is that there is nothing analogous, to which one can compare it, in a thickly settled country. But suppose that the reader fancies the country with which he is best acquainted in an old settled country, entirely destitute of buildings or fences, or in fact any mark of civilization, with all the hills reduced so as to make a gently rolling surface, the woodland to remain as it is, and the entire surface of cleared land covered with grass—that upon the upland thick and short, and in the low lands one or two feet high, and in the swamps four or five feet, and he may have a very faint idea *how a prairie looks.*

So you see they are not so "very level." Gently undulating, applies to all prairie countries within my knowledge. Sometimes, though rarely, hills occur that are too steep to cultivate conveniently, and sometimes rocky bluffs. But a general characteristic in this region is destituteness of stone, except a few boulders of granite, that have come from parts unknown.

The streams are most generally muddy bottoms. The timber in the groves or islands that abound throughout this sea of grass, is most commonly short, and grows thin upon the ground, without underbrush, except at the edges, where the hazel bush seems to be the advanced guard, and is constantly encroaching upon the prairie. There are large tracts of timber land called "barrens," which are about half way between prairie and timber land—the tree standing apart like an orchard, and the ground covered with grass, the sod of which is much less tough than that on the prairie.

One very prominent feature of a prairie, I should mention, and that is the constant and ever varying succession of flowers from spring till fall.

A singular and false notion prevails about

the height of the grass, and that it must be difficult getting about. It is not even difficult for a sheep, as the grass never grows high enough upon the dry land to impede or hide them. Near the banks of streams, or in marshes, it is like going through a field of oats or wheat. And it is in such places that grass is cut for hay—some very good—some good—and some that the less said about, the smaller the sin committed.

But as for pasturage, no country can excel this. The milk, butter, cheese and beef attest the rich juciness of the feed. But we lack the beautiful blue grass pastures of Kentucky, for fall feed. Even now, near the middle of December, notwithstanding we have had a hard fall for this country, this grass is green and good. Even timothy or red top would yet afford "a good bite."

The next wonder is about ploughing. And if, my dear reader, you who have ploughed so many acres of green sward with old "Duke & Darby," could only see a "prairie team," you would wonder still more.

Fancy upon a level smooth piece of ground, free from sticks, stumps and stones, a team of four, five, or even six yoke of oxen, hitched to a pair of cart wheels, and to them hitched a plough with a beam fourteen feet long, and the share, &c. of which weigh from sixty to one hundred and twenty-five pounds, of wrought iron and steel, and which cuts a furrow from sixteen to twenty-four inches wide, and you will figure the appearance of a "breaking team" in operation. If you ask me if this is necessary, I can only tell you that I suppose it is, for it is *fashionable.*

I do believe though, that a smaller plough and less team would be better for the land, though it is said it would be more expensive ploughing. It is true that the sod is more tough than can be believed by those who have never ploughed it. It requires the plough to be kept very sharp, and for this purpose the ploughman is always provided with a large file with which he keeps a keen edge as possible upon the share and coulter.

Such a team ploughs from one to two acres a day, usually about four inches deep, which is not near down to the bottom of the roots, so that the sod turned up affords but a scanty covering for grain that is sowed upon it at first, yet very fine crops of wheat are raised in this way. It is also a common practice to break up in the spring and drop corn in every second or third furrow, and from which twenty or thirty bushels to the acre are often gathered, nothing having ever been done to it after planting. It takes two or three years for these sods to become thoroughly decomposed, and then the soil is of a light, loose, black vegetable mould, very easily stirred by the plough, but of a nature that it adheres to the plough in a troublesome manner. In fact, no plough has ever been found to keep itself clear; and the ploughman is generally obliged to carry with him a small wooden paddle, with which to clear off the adhering mass of dirt upon the mould board With this exception, the prairie soil is generally one of the easiest in the world to till, and of course remarkably fertile.

By far the greatest portion is based upon a sub-soil of clay, though in many places the sub-soil is sand or gravel, and there are large tracts of which the surface is of this material. The streams are often broad and nearly covered with vegetable growth, in some instances to that degree that sheets of water many rods wide actually burn over during the autumnal fires.

Notwithstanding the many "interesting accounts of burning prairies," the fire upon a dry prairie in a calm time does not blaze as high as it would in an old stubble field. But in the marshes or wet prairies, it sometimes rages with most magnificent grandeur.

There is one more question often asked, that deserves some notice; and that is, "How is this land ever to be fenced?" This is a question that deserves serious consideration.

The settlements already made are upon the smaller prairies, the centre of which are not more than four or five miles from timber, or along the border of "the Grand Prairie," taking care not to extend out beyond the reach of convenient woodland. But there are many places where the groves are barely sufficient to furnish the land most contiguous, and vast tracts of prairie are to be found ten or fifteen miles from timber. That these tracts will for ever remain uncultivated, cannot for a moment be thought of. That timber can be planted and raised in abundance is certain. It is equally certain that they can be fenced with ditches, and perhaps with hedges, though the experiments that have as yet been made in the United States to enclose land with hedges have generally proved failures.

The most feasible plan, it seems to me, would be to enclose large tracts by ditching, and cultivate the land without division fences, even between many occupants. Such is the mode in many parts of Europe, and more particularly in China. Or this kind of land could be profitably improved by grazing herds of cattle and sheep under the care of shepherds. Houses of a most comfortable kind can be built of clay without burning into brick, and the expense of hauling lumber for roofs and inside work would be trifling. The only difficulty would be fuel. In many parts of the West coal exists in abun-

dance, and where that is not to be had, the expense of hauling wood over a smooth and nearly level country would not be a serious obstacle. It is also thought that peat will be found abundant.

At present, however, there is an abundance of unoccupied land so convenient to timber as to be easily fenced in the common way, with Virginia or worm fence, and the oak timber of this region is very durable.

I have heretofore published several articles of advice to western emigrants, which I have much reason to believe have been well received by the public, and I have received many earnest solicitations to make further remarks upon the same subject. But my present letter has become too long to do it now, but if my health is spared, I hope to have the will and ability to do so hereafter.

In the mean time, permit me to say that although I am a new correspondent to your new paper, yet I hope you may so meet with public favor as to be able to write yourselves down to the public as I do now,

Your old friend,

SOLON ROBINSON.

Lake C. H., Ia., Dec. 10, 1841.

Seeding down and retaining lands in Grass.

THERE is perhaps no individual item of cultivation more important to the general farmer, and none so indispensable to the stock farmer, as the produce of the various grasses. In our American husbandry, where the saving of labor is a cardinal virtue in the farm, it is of great importance to maintain *permanent* pastures and meadows. This, as we have ofttimes in our experience observed, is easily and cheaply attained. Not on all soils to be sure, for there are those so sterile and loose, so dry and rigid that but two or three crops can be cut or fed, until it is necessary to plough and crop the land, to fit it for a new seeding of grass, and so onward in successive courses of cultivation. But there are soils, and those comprising the great mass of our western New York farms, which are tenacious of the grasses, and with proper care, will probably produce them in endless succession for centuries—at least they have thus far since the settlement of our country. On these, perhaps no crop is more profitable, or requires less time and labor. It is therefore desirable to perpetuate it without disturbance, and add if possible to its value and productiveness.

In laying lands down to grass, the season, and the manner must depend on the crop which is to precede the grass, and the condition of the soil. If the seeding crop be winter wheat, or rye, the grass seed should be sown on the last snows in March following the grain seeding; or if no snows occur, during the breaking up of the frosts in early spring, it should be sown while the seed can effect a lodgement in the open crevices of the soil. The objections to sowing the grass seed with the winter grain are that it will grow so rapidly through the autumn as to injure the spreading of the young grain before the setting in of winter, and choke its full and vigorous growth in the spring and summer. If the grain be sown in the spring, barley and spring wheat are preferable; but oats will answer to seed with, requiring, as we think, a trifle more of seed than when sown with the other grains. If the land be stony, or stumpy, great care should be taken to get it as smooth as possible, for the convenience of mowing.

Quantity of seed per acre.—This will depend somewhat on the quality of the soil. As timothy (*Phleum Pratense*) and red clover (*Trifolium Pratense*) are the principal, and, I may add, the best grasses cultivated in our country on the uplands—the proportions may be varied as the soil predominates towards wet or dry. On moist soils, at least two-thirds to three-fourths of timothy should prevail—on the drier, the proportion of clover should be greater, perhaps one-half to two-thirds. From eight to twelve quarts of mixed seed should be sown to the acre, and if used with the spring crop, well harrowed, bushed, or rolled in. During the first year, no heavy stock should feed upon it, as the ground will not have acquired sufficient compactness to resist the cutting of the young turf by their feet, nor should animals ever be permitted to poach them in spring and fall in soft weather. This is very injurious. During severe winter frosts, and snows, and in the grass growing seasons, farm stock may range mowing grounds with impunity, but at all other times they should be kept away.

After management.—If the soil be a clay, or tenacious loam, provided it be properly treated, we know of no good reason why either meadows or pastures should *ever* be broken up. These we consider the best and most natural grass lands to be formed. Gravelly and sandy loams occasionally are tenacious of grasses, and will ofttimes hold them with good top dressing, either in meadow or pasturage for centuries—but in dry hungry soils, they often *run out*, as the term is, in two, three, or four years, and demand renewal, with fresh cultivation, and the application of active manures. We have seen numerous mowing and pasture grounds in lands free from stone, which have *never* been ploughed. The first crop of oats or wheat after clearing, had been simply dragged in with grass seed, the grain crop cut, and the grass ever

afterwards yielding its annual and abundant crop of either hay or pasturage. On all soils where vegetable decomposition is abundant, no cause but the uneven condition of the surface owing to the decay of stumps, displacing of stones, &c., should demand breaking up meadows or pastures, unless for grain or root cropping; for it is considered doubtful among many of our best stock farmers, whether vegetable loams ever produce better, if so well, without frequent manuring, after the top soil left at their first clearing be disturbed; and they do in numberless instances submit to the inconvenience of mowing their meadows with a very rough surface year after year, rather than risk the replacing them with a sward after being ploughed and smoothed down. Undoubtedly there is much prejudice in this, but when intelligent farmers persevere for a long series of years in a usage sanctioned by their own experience as satisfactory, their opinions are entitled to consideration.

As before observed, we consider the tenacious moist soils the natural land for grasses. In these, if properly treated, they will grow for centuries. A top dressing of stable manure, compost, ashes, gypsum, or any fertilizing matter, either in spring or autumn, will keep them in abundant fertility if in meadow; and if in pasturage, the droppings of the animals depastured, will amply recompense for the herbage consumed. Properly treated, grass lands will rarely become bound, or mossy; but should they ever become so, a thorough scarifying with the harrow, a sprinkling of seed, and a good top dressing of manure or ashes, will always bring the grass into an abundant crop. All standing surface water should be removed by draining, and the wild grass which it produces will be immediately expelled by the timothy and clover, and become equally productive with the other portions of the field. If running water can in any instance be directed upon meadows in the spring and summer months, properly graduated and controlled, the crop of grass can be greatly augmented, as it supplies no inconsiderable portion of the food of grass, and in many instances meadows have produced for a long series of years heavy crops without other applications than artificial waterings. In England, this method of treatment is now obtaining great practice, wherever available, and oftentimes enormous expense is incurred to carry streams by canals to distant meadows.

Old mowing and pasture lands are sweeter and more nutritious in their grasses than those freshly laid. The grass is finer and thicker; and the produce is more steady and abundant. In some of the fine stock and cattle regions of England and Scotland, old pastures and mowing lands rent for twenty to twenty-five dollars the season per acre, when those newly laid will earn only half the sum; always being preferred to the newly laid grounds—and their experience is well worth our consideration on this side the Atlantic. Many meadows in this country can be found which yield two to three tons, and sometimes more per acre, which have not been ploughed for an hundred years, with occasional top dressing, and sometimes with or without flowing them with water. In the interior, gypsum is annually used in great quantities by many of the stock and dairy farmers, upon both mowing and pasture lands, at the rate of one to two bushels per acre, and is found a great promoter of the growth of grass. The dairymen and graziers of New York, and the western counties of New England, are adopting the use of this valuable material with great benefit to their interests, and the constant improvement of their farms; and it is now well ascertained among the best of our stock farmers, that permanent grass lands are not only the cheapest, but the best for their purposes.

We have spoken of timothy and red clover. For all feeding purposes, we consider these as yielding the best hay and the most productive for meadows. On soils that are very wet, they dwindle, and in some instances refuse to grow. Such, if practicable, should be drained; or if not, the red top, or foul meadow, and coarser grasses should be cultivated. In pastures, the more kinds of valuable grasses that can be introduced the better. White clover (*Trifolium repens*) and blue grass* (*Poa Compressa*) are indigenous to most of our soils, and produce sweet succulent feed; but as they are neither so rapid in growth, nor so easy to feed as timothy and red clover, the latter should predominate where friendly to the soil. For sheep, and close feeding animals, however, perhaps no grasses are sweeter and more nutritious than the white clover and blue grasses.

There is also another great advantage in cultivating timothy, principally as a hay crop. It dries away less, or loses less weight in curing than most other grasses, and if not cut too early, yields great quantities of seed, sometimes as high as twenty-five or thirty bushels to the acre, and the straw makes a very tolerable hay. It suffers less from long standing in the field after fit for the scythe than other grasses, and taken altogether, cattle, horses, and sheep are fonder of it than any other hay. It should

* Judge Buel asserts this to be the common spear grass of the Northern and Middle States; and the Hon. Henry Clay pointed it out to me as identical with the blue grass of Kentucky and the Western States.

never be cut until it has passed the flower, and the pollen begins to drop from the head, and then for all feeding purposes the sooner cut the better. Even then, much of the seed will ripen. Ordinary farm stock fed on this hay will thrive if they have *enough* of it, and our own cattle have often, when purchased late in the fall, gone into the stables in low condition, and come out in high flesh in the spring with no other food than timothy and clover hay, water, and salt.

We might pursue this subject with much interest, in discussing the best methods of cutting and curing hay, feeding farm stock, &c.; but as it leads us into a longer essay than we intended at our commencement, we must defer it till another time. L. F. A.

TREES AND SHRUBS

Considered with reference to their Importance in the Economy of Nature, and to Man.

[From a forthcoming work on the "Trees of America," by D. J. Browne, C. E.]

Few objects can be more innocently pleasing and of more importance in the economy of nature, and to man, than the various vegetable productions of the earth. The large proportion which its surface bears to its herbage, and the immense extent of the forests in comparison with that of meadows, pastures, prairies, or plains, seem to indicate that trees and shrubs act an important part in the economy of our globe. In countries uninhabited by man, the influence of forests must be on the climate, on the soil, and on the number of wild animals, and herbaceous vegetables. In civilized countries, to those influences must be added the relation in which they stand to man.

It appears highly probable, that the greater part of the surface of our globe has been, at one time, covered with wood; because, among other reasons, coal is found in nearly all countries in both hemispheres from the equator to the poles; at all events, it is certain that this has been the case with the greater part of the temperate regions of the globe at no very distant period. The whole of the American Continent was until lately, almost entirely covered with trees and shrubs, and presented few naked surfaces, except those of the prairies, alluvial deposits on the banks of its larger rivers, and on the tops of the highest mountains; and what was so recently the condition of America must, we may reasonably suppose, have once, at least, been that of every other part of the world.

The influence which a predominance of forest must have in a country uninhabited by man must have extended to the animals, the herbaceous vegetables, the soil, the waters, and the climate. To wild animals of every kind, especially to those of the more ferocious tribes, forests have, in all countries, furnished shelter, and, in a great measure, food—birds, insects and reptiles are the more common inhabitants. Herbaceous plants are, for the most part, destroyed by dense forests; but some kinds are encouraged by the thickness of the shade, and the moist heat which prevails among the trunks and the branches of the trees. But the great influence of forest scenery in a wild state is on the soil; and, in this point of view, natural forests may be regarded as a provision of nature for preparing the surface of the earth for the cultivation of the chief productions which constitute the food of man, and of domestic animals. It would be interesting to show how the soil is furnished with that organized matter, so essential to the growth of perfect plants, by the decay of leaves, and, ultimately, by the decay of trunks and branches. The waters of a country, the rivers and lakes, are invariably affected by the state of the woods of that country. These woods, and their mossy beds, must, in all cases, act more or less as a sponge in retaining the water which falls on them; and water must thus be supplied more gradually to the rivers, in countries covered with wood, than in those which are cleared, and regularly drained. A striking instance, illustrative of the above facts, occurred in the valley of Aragua, in the Republic of Venezuela. Oviedo, who, towards the end of the fifteenth century, so often traversed this valley, positively affirms that New Valencia was founded in 1555, at the distance of half a league from the lake of Tacarigua. The same place was visited by Humboldt in 1800, and it was found that the town was situated more than three miles distant from its banks. In the meantime, new islands appeared in the lake, and the space which had been exposed by the retreat of the waters, was transformed into the most fertile fields, where the cultivation of indigo, sugar, cotton and cocoa had been carried to a great extent. In the year 1800, the valley of Aragua maintained a population as dense as the most populous portions of France. The cheering prosperity which existed in the numerous villages, teeming with an industrious yeomanry, could not be witnessed without the greatest satisfaction. After a lapse of twenty-two years, this country was again visited, and it was remarked by the inhabitants for many years, that, not only the waters of the lake had ceased to subside, but, on the contrary, that they were rapidly rising.

Within the period which had intervened, important political transactions had occurred. Venezuela now no longer belonged to Spain. The smiling valley of Aragua had been the arena of the most bloody contests, and war and death had desolated those happy scenes, and

greatly reduced the population. On the first cry of independence, a number of slaves obtained their liberty by fighting under the standard of the new republic. Its wide-spreading cultivation was neglected; the forest trees, so luxuriant within the tropics, had again, in a great measure, usurped dominion over that region, which its inhabitants, after a century of constant and painful labor, had reclaimed. During the growing prosperity of the valley of Aragua, the numerous streams which fed the lake, had been arrested and employed in innumerable irrigations, and their beds were found dry for more than six months in a year. At the last epoch to which we have alluded, 1822, the streams being no longer so diverted, flowed without interruption. Thus, then, the progress and continuance of agricultural industry in the valley of Aragua, when the process of clearing was carried farther and farther, and when cultivation in every variety was advancing, the level of the water gradually subsided. More lately, on the contrary, during a period of misfortune, when the clearing was no longer continued, and the cultivated lands have fallen back into their primitive wildness, the waters having ceased to fall, and are now very speedily assuming a rising movement.

The same facts are corroborated by numerous other instances. "In laying low the forests," says Humboldt, "which cover the tops and the flanks of the mountains, mankind, in all climates, are, at one and the same time, entailing two great calamities upon succeeding generations—a scarcity both of wood and of water." The truth of this remark we find verified by examining the history of all the civilized countries of the globe. The influence of forest scenery in increasing the moisture of the atmosphere, and in preventing a climate from being so hot in summer, and so cold in winter, as it would otherwise be, is well understood, and need only be mentioned.

The utility of studying the influence of trees in an uncultivated country is, to afford useful hints with reference to the planting or thinning of them in countries which are civilized. That which is applicable on a grand scale, where forests cover many thousand acres, must operate more or less in the same manner where they extend only to a few acres; and, consequently, this influence must be kept in view in the formation of plantations both useful and ornamental. If forests, in their primitive state, supply food to birds and insects, or afford shelter to larger animals or reptiles, in a civilized country birds and insects, larger animals and reptiles, may be expected to abound more or less wherever there are trees and shrubs to supply them with food and shelter. Hence the advantage of knowing what trees and shrubs are obnoxious to particular insects, and what inseets attack trees and shrubs generally. The total destruction of herbaceous plants in dense forests enables us to know, that, where we wish the grass or other herbage under trees to thrive, we must plant or leave the trees thinly; and the influence from the decay of leaves, branches, and trees, in adding to the soil teaches us how barren soil may be improved by trees; and this natural effect has been imitated by trenching down entire plantations of Scotch pine, grown on extremely poor soils, in some parts of Scotland. Undrained woods are known to retain the water which falls on them much longer than open groves or plains; and, as increased exhalation and evaporation must be going on from such woods during the period of retention, an increased moisture must be thus produced in the atmosphere, and the circumstance may demand consideration in planting extensive shrubberies near dwellings; and, more especially, in planting such as are intended, by frequent digging, always to present a surface of naked loose soil. The influence of trees in modifying both the temperature and moisture of the atmosphere in civilized countries and in artificial scenery, is generally known; and this knowledge should not be lost sight of in the disposition of trees and shrubs about houses, more especially in low situations. There is great reason to believe that many residences in this country and particularly in England, naturally healthy, are rendered unhealthy by the superabundance of trees and shrubbery, and by the quantity of loosened earth in their immediate vicinities. The insects which often infest the rooms of our houses, are also very much increased by the proximity of wood.

From trees and shrubs in a wild state we can only truly learn their primitive natures; because plants, like animals, begin to change their habits as soon as they are taken into cultivation. The fact that this change takes place ought to be borne in mind, when we wish to improve a tree by placing it in a different soil or situation from that in which it is found in its natural state. There are certain soils and situations, however, in which plants are found in a wild state, that can hardly be improved by art; these are peat bogs or swamps, such as are found in many parts of our country, and Alpine situations.

So various and so important are the uses of trees and shrubs to man that to say much on the subject here would go beyond our circumscribed limits. In spring, when they put forth their young buds; in summer, when they exhibit their fully-expanded leaves; in autumn, when robes of every variety of hue are hung upon their branches; in winter, when the glory of summer is trodden under foot, presenting around a scene of

apparent desolation, he beholds them, on all occasions, as affording the means of enjoying the most varied pleasures. Their great utility in many arts, and their absolute necessity to animal life must contribute to give him a reverential feeling for his Maker, who has created all these things for the comfort and happiness of the animal world, more especially for us mortals. Look at the beauty and variety of their growth! What cradles, arches, avenues, pyramids of verdure, loaded with fruit, presenting the most enchanting habitations. What happy nations live under these peaceful coverts! What delicious banquets are here prepared! Nothing of them is lost—man feeds upon the fruits, quadrupeds eat the tender leaves, birds the seeds, and other animals the roots and the rinds, and, lastly, the insects devour the offal. Every part is of use to some animal—all nature teems with living matters through its ever-varied and innumerable productions.

Indian Corn for Soiling.

Should we ever have reconrse to the soiling system in America, we are confident that we shall find Indian Corn, far superior for this purpose to any of the European grasses so highly lauded. If with Lucerne, the different kinds of clovers and Italian Ryegrasses, they get in England, six to eight tons of *green* food per acre they think it an abundant crop; but from an experiment lately conducted by the Honorable Mr. Ellsworth at Washington city over one hundred tons corn fodder have been produced. Judging from a reasonable calculation, and from one cutting alone, we believe that on our medium qualities of corn land, twenty to thirty tons might generally be depended upon.

The experiment below as detailed by Mr. Carpenter, shows a great product, but as he took no pains to ascertain the quantity, he is desirous of being within bounds, in estimating the yield. The best time to commence feeding, is very properly noticed, and important in practice, otherwise the stock scour, and it does them more harm than good. In order to keep up feed for soiling through July, August, and September, it will be necessary to sow at different times, from the first commencement of the season till July. We should think this a system worthy of adoption in the more southern latitudes, where during the summer and fall, pastures are liable to excessive droughts, which scorch up all the grass, and cause much suffering to stock, from the want of green food. Care should be taken when sown late to *soak* the corn and sow immediately after a shower; and if sufficiently thick, it will in a short time after it is up, shade the ground sufficiently to prevent the otherwise injurious effect of the sun.

Another important thing to be noticed in this crop is, the large ears it produced, notwithstanding its thick planting; but we are of opinion that this could not generally be depended on. It was probably the very favourable season that insured the growth of these; it will be seen that Mr. Carpenters subsequent failures go to corroborate our opinion.

Dear Sir: Sowing corn broad cast, I have some experience with for soiling, and my first effort was the most successful. I prepared one acre of ground, a sandy loam, manured about four inches deep with cow manure, which is very compact, and therefore the most suitable for this kind of soil. I ploughed deep cross ploughed and harrowed until well pulverised, and sowed the corn broad cast the 4th of July. In a few days it was up, and so very thick that I was fearful it would not amount to half a crop, but the season happened to just suit it. About the 10th of August, I commenced feeding, but the cattle did not relish it, and I soon found it was not sufficiently matured, it being at this age watery and liable to scour them. I then left it till about the 25th of August, when it began to top and tassle, the saccharine matter had by this time more fully matured, when the cattle eat it greedily.

By the 1st of September, the most forward stalks were in roasting ears, and I found that my cows, not only increased in the *quantity* of their milk, but the *quality* also was much *improved*, and although they were grazing on blue grass pasture, they eat every particle of the green corn, which continued to grow very luxuriantly, the stalks rising from ten to fifteen feet high, the size of those on our rich bottom lands, and so thick a dog could not run through them, I have repeatedly tried to walk into the corn, but it was as impenetrable as a cane brake. It may appear like exaggeration, but almost every stalk had one ear and some two, they were not mere nubbins, but ears eight or ten inches long.

I have always regreted I had not made an accurate calculation of the amount of bulk it yielded, but I supposed I should have no difficulty in raising just as good a crop every year, but I never succeeded so well, although I have repeatedly tried. The drought, a heavy wind, or something would turn up to shorten my calculations, yet the after crops yielded more food than anything else I ever tried; and it is a crop well worth the trouble and expense. I presume at my first trial, that I cut at least sixty tons from the acre of green food.

To ensure a good crop my plan would be this. Take a rich piece af loam sow it in wheat in the fall, soil it off in the spring; and as soon as the crop was done, manure it highly and then sow the corn. I have found wheat and corn to be the most valuable green crops for soiling and I have tried oats, rye, clover, and millet. A small patch of wheat and corn will pay every farmer well for soiling; rye is good, but I much prefer the wheat, unless it is to stand over the summer, rye then is the best, as it produces a crop of grain after spring feeding, and again sows itself if wanted for the next spring pasture, which wheat will not usually do. Respectfully yours,

EZRA CARPENTER.

A. B. ALLEN, Esq.,

Cincinnati, 17th January, 1842.

For the American Agriculturist.

GENTLEMEN,

It is well known in this vicinity, during the existence of our former Agricultural Society, as well as that of the "State Board of Agriculture," that in the summer of 1824 the late Hon. S. Van Renssellaer, imported from England, through the agency of Jonn S. Skinner, Esquire, editor of the "American Farmer," one bull and two heifers of the "Improved Durham Short Horned" breed of cattle, being the first I believe of that valuable race introduced here.

The enterprize of men of wealth, stimulated by a zeal for improvememt, which our agricultural associations have called forth, has done much to improve our farm stock, by the introduction of the choicest breeds of animals to be found in Europe.

With a commendable liberality, Mr. Van Renssellaer not only offeredthe use of his bull, gratis, to the farmers, but made presents of all his bull calves to such persons, as he presumed would be the means of doing the greatest good in diffusing the blood throughout the country. From this it would be naturally supposed that all the farmers in the immediate neighborhood would avail themselves of the privilege offered them. But such was not the case, and the bull was suffered to stand from year to year, at the farm, unnoticed and almost unknown, until about the year 1830. Whether this arose from the fact of his offering the use of his bull gratis, or from what other cause I am unable to say; but it is no less wonderful than true, as soon as a charge was made for his service, his value, all at once, seemed to be appreciated, and cows were sent from various directions.

About this period, Mr Bennett, the present manager, took the possession of the farm. It is due to Mr Bennett to say, that through his attention and exertion, the stock soon rose into notice, and attracted the attention of those spirited farmers that have sprung up in every section of our country, and large drafts were made from his yard and at remunerating prices.

So many individuals of their stock, and descendents from them are dispersed all over the country that a history of the originals, seems to be called for, and for that reason, I have attempted to throw together such information in regard to them as I possess.

Washington whose portrait adorns the head of this article, was in color a dark red, with white or roan spots interspersed over him, bred by Mr. Champion, of Blythe, England. In a letter accompanying him, Mr. Champion says, "The Bull, I have sent is very superior; he was three years old March 25th, 1824. He was got by a son of Blythe Comet; (who obtained the first prize of twenty guineas, for the best bull shown at the Lancaster agricultural meeting in 1821;) his dam by Blythe Comet, (and a great milker) his gran-dam by Prince; great gran-dam Neswick; from all the last three bulls I have bred many superior and valuable animals. I do not hesitate to say that he possesses more valuable points, substance, and desirable quality of flesh, than any bull I ever saw with as light bone and offal; and I feel great pleasure that I have such an animal to send to America."

Never did words prove more true than did the above as regards Washington, as his stock will testify. One thing however, is well worthy of remark; *all the calves got by Washington, after he was ten years old were superior to those got before that period;* thus refuting the

too common and popular opinion, that bulls are not good for stock, after they are three or four years old. Although I never saw him in high condition, still, he always discovered great stamina, much vigor, spirit, and strong constitution. He lived to a good old age, and died in 1839 when 18 years old.

On his arrival in this country Mr. Van Rensellaer changed his name and called him Champion, after his breeder, as he had too great a respect for our worthy and adored countryman to possess an animal bearing so venerable a name; therefore he always went by the name of "Champion" until 1830, when it was suggested to call him by his proper name, Washington, as recorded in the "Herd Book."

Several spirited individuals at that early period, who had devoted some attention to the improvement of stock, and amongst others, Mr. Featherstonhaugh, then of Duanesburgh, in an adjoining county, sent a cow to him. I cannot resist the desire to insert here an extract from Mr. Featherstonhaugh's letter to Mr. Van Rensellaer, in 1825, on the subject of his calves.

"Sir—having now had an opportunity of examining some of the calves got by that magnificent bull *Champion*, (Washington,) imported by you in the summer of 1824, I sit down with much pleasure to communicate to you, as you have desired, my opinion of the relative value of the improved short horned stock, with the other breeds of cattle known to us here.

So many individuals of that breed have within the last ten years been brought from England into this and into some of the neighboring States, and their descendants are now so widely spread, that opportunities for observation and comparison are becoming very abundant in the vicinity of the coast; and even offer themselves, although partially as yet, in the interior.

I have upon different occasions availed myself of the increased facilities for observations of this nature; and with the aid of my personal experience in this and other breeds of English as well as of our own native cattle, do not hesitate to say, that I have seen many individuals of the pure blood of the improved short horns, which have descended from imported stock and their progeny in no manner degenerated from the fine animals they sprung from; and their mixed progeny, got by short horned bulls upon the finest American cows, as far as they have fallen under my observation, *and they have been taken proper care of*, surpass any of the native or mixed breeds I have yet seen in the United States. I am aware that warm controversies have arisen on this subject amongst us, which was the case in England for a while. The owners of the stately short horns have been accused, in both countries of pressing their favorite stock into notice; and the Herefords and Devons, to say nothing of others, have taken the field against them. Public opinion, however, on the other side of the Atlantic, as far as I am acquainted with it, appears to be decidedly in favor of the short horns. Every year seems to bring them an accession of patrons, and to strengthen the opinion that it is a breed which *renders the most money in the shortest period of time.*

When you apprised me of the arrival of your fine bull Champion, (Washington) last summer, I availed myself immediately of your kind offer, and sent one of my short horned cows to him. She brought a bull calf on the 5th of May last. He has been raised from the pail, from his mothers milk. We have raised six other bull calves of different breeds, who have sucked from their birth, being requested they should do so by those who gave orders for them; and at this moment he is worth nearly twice as much to the butcher as any of them. He resembles his sire in most of his points, and is the best calf we have ever had.

Another instance is worthy of record. A farmer, by the name of Hollis, who emigrated from England and settled in the county of Otsego, 90 miles from Albany, drove his cow that distance to go to Washington. Mr. Van Rensselaer was so much pleased with his spirit, for the improvement of his stock, that he not only tendered him the use of his bull but actually boarded him while he was obliged to stay with his cow.

I have said at the commencement of this article that there were two heifers imported with Washington, one of them is described in Mr. Champion's letter refered to before, as follows. "The dark red and white heifer, I have named *Conquest*. She was got by Conqueror, (a son of Warrior,) sold last year by me for 100 guineas; her dam Coats' Tulip is by Blythe Comet; grand dam by Driffield; great grand dam young Hart, by Haughton; great great grand dam by a bull of Mr. Cornforth of Banferth, near Darlington. Conquest you will find a most elegant heifer, remarkable high formed shoulders, and promising to grow to a large size and descended from an excellent milking sort."

This heifer slipped her calf on ship board and never after would breed; was fattened and slaughtered, she was said to be much the finest animal of the two.

The other was a roan heifer, named *Pansey*, "she was got by Blaize; (a son of Blythe Comet;) her dam Primrose by Marson's Charles, (for the use of which bull for two years, the late Mr. Mellish and myself paid 450 guineas; grand dam by Blythe Comet; great grand dam by Prince; great great grand dam by Mr. George

Coats' Patriot, which bull he sold into Lincolnshire for 500 guineas; she is a very neat heifer, her bone and offal very light. Primrose, her dam, is a most magnificent cow; and she is the dam of the bull I sold to Mr. Singleton."

Pansey produced a bull calf in December, after she was imported, who was got by Aid de camp, and was called Young Champion, and was taken a few years since by Henry Van Renssellaer, to his estate in St Lawrence County, near Ogdensburgh. So we may say, from Washington and Pansey, all the stock commonly called and known as the "Patroon Stock," have originated, as I am not aware of any calves having been reared from "Young Champion." Pansey died two or three years since, at a ripe old age.

This stock has always been noted for great thrift—taking on flesh very readily—fair milkers, and Mr. Bennett says, are out of fine deep milkers.

C N. Bement.

Three Hills Farm, March 1842.

English Farming Stock.

London January, 8th 1842.

Messrs Edrtors

One of the most interesting places to me is the Smithfield cattle market. The field is in the very heart of the city, and filled with small pens for sheep and hogs or with low posts and rails to fasten cattle to, as they are all tied up as soon as they get into the field. One sees here every variety of stock which the kingdom can produce, and no bad samples of the quality of the different breeds. I doubt whether you could find a place any where else, that would enable you to compare side by side, the various breeds, and grades of British stock. I have been at the market two days. Each day there was upwards of 16,000 sheep, and about 2,500 head of cattle. I have seen much the same disparity in the proportion of cattle and sheep in most of the other large markets. Mutton is the most profitable meat the farmer can raise, as it gives a quicker return for his capital, and at a better profit, than any other stock he can keep. The consumption of mutton is enormous. The first consideration of the farmer is to get that kind of sheep that will give the most meat in the shortest time. Wool is no consideration, or at least only a secondary one, as all their fine wool is imported. Hence professed breeders have aimed in all their improvements, to get a large carcass and early maturity.

The best mutton is the small black faced Scotch, the Welsh, and the *natural* South Down; I say natural, for in its natural state the South Down is not a very large sheep. The improved South Down I think must be the result of a cross between the South Down and the large long-wooled sheep.* When herbage is scarce, as in mountainous, and sterile regions, these kinds of sheep may prove profitable; I am however, decidedly in favor of our own improved fine wooled sheep. The same necessity does not exist with us, as here, to raise sheep for their carcass only, and it is of no consequence whether the sheep mature at three, four, or five years. Wool with us, must be the first consideration. Though I am satisfied that we can have not only good wool but good carcass also. At any rate it is of the very first importance to us as a nation, that we raise our own wool, both fine and coarse. The only way that coarse-wooled sheep can be made profitable with us, is for the small farmer, who keeps from 20 to 50 or 60 sheep. By taking good care of his ewes, providing them with plenty of roots, and good warm shelter, he might manage to have his lambs drop early in winter, perhaps in January. By that means they would come into the market early in the season and thus command a very high price. I should only use the long-wooled and large sheep, when early maturity, and large size are the two great requisites. Of the long-wooled kinds, I prefer the Cotswold to all others. By far the largest number of the sheep in the market were of the long-wooled breed, being grades from crosses with the Cotswold and Liecester.

They have almost as great a variety of hogs here as we have at home. I have seen some hundreds, indeed thousands in Ireland, and the Provincial markets, but a small number of them were pure Berkshires. The Irish Grazier is a very good hog, when it had been crossed with the Berkshire it was a very fine animal preferable to the full blood of either. I think from all I have seen, that the Berkshires are not large enough for our use, as I have rarely seen them keep up to the size of those I have seen in the breeders pen. For the purpose of crossing with the common hog I consider the Berkshires invaluable. They do not generally make their pork as fat as is the custom with us. In Ireland in particular the hogs brought to market were generally what we should call light pork, although Pat feeds his pig better than he does his family.

Of their horses, I have seen but two kinds that I think would be at all useful to us. The coach horse which is seen in most perfection in Yorkshire, is a fine animal, and a judicious

*We believe the majority of British authority on this subject deny any admixture of a foriegn cross on the original South Down, in the splendid examples afforded of that breed at the present day. Eds.

selection I have no doubt would improve our breed. I have seen some very fine specimens of the cart horse and if properly crossed with our lighter mares, the result would be a very useful animal by giving them more size, and bottom. I have seen some very fine animals the result of a cross with the large Pennsylvania horse, and the common mare. I do not see why a cross with the English cart horse which is not so bulky as the Dutch horse, would not produce quite as desirable a breed. The experiment merely is worthy of a trial. It sems to me if our New England farmers would turn their attention to breeding horses they might produce a very hardy valuable animal. Let them but get the right kind, and my word for it, a New England horse would always command the highest price in the market.

Of the improved methods of cultvation I have not now time to speak, but may perhaps at another day if I have not already occupied too much space in your paper.

Sincerely yours, T. C. Peters.

Agriculture in Wisconsin.

We here introduce a capital letter from George Reed Esquire of Milwaukie Wisconsin; and although we cannot comply with his particular request, to give him a *written* communication, we shall send him our paper, which we hope will do the society, of which he is an efficient organ, some benefit. In the progress of our publication he will find his queries particulary answered.

Milwaukie 14th February 1842.

Dear Sir.—Knowing that you feel a lively interest in any measure that tends to the advancement of agriculture, and the promotion of the interests of the cultivators of the soil in this *western* country, as well as in your own state; it gives me much pleasure to inform you that we have recently organized a "Territorial Agricultural Society," the constitution and proceedings of which I herewith send you.

I view this as one of the most important steps that could be taken to improve the condition, and promote the happiness of those who are engaged in the various pursuits of agriculture, and I believe that it will be regarded by those who shall succeed us in this delightful occupation, as one of the brightest eras in the history of Wisconsin.

Why cannot this society do as much for Wisconsin as similar societies have done for New England and the Empire State? There agiculture as a science, and as an art, has been carried to great perfection; and is not their eminence in this respect attributable in a great degree to these societies?

To them—the East—we must look for example and guidance. We can in a short time learn the results of their experience for many years past; and if we but profit by that experience, our progress in agricultural improvements will be two fold more rapid than theirs has been.

The object of this letter is to solicit communications from you upon the subject of agriculture, with which you are known to be familiar in all its various branches. I believe however that your attention has been more particularly directed to the improvement of stock—cattle and hogs. I notice that you have recently retured from England, bringing with you some of the finest animals that could be selected in that country.

You will allow me to direct your notice to the subject of our resolution, adopted by our Society, "that essays be solicited on the various breeds of swine and those best adapted to the country, and the best mode of raising and fattening the same." This is a subject in which our farmers feel a deep interest, as pork is becoming one of the staple productions of this country. Little has yet been done to improve our breeds of swine; the Berkshire and Lecistershire have been introduced, it being the practice here to let our hogs run at large, the Hoosier seems determined to *root* out all other breeds. Three years ago, when this country was very sparsly populated, and *wolves* plenty, the Hoosier was the best breed that could be obtained; They are good *fighters* and could usually defend themselves when attacked by the *wolves*; if however likely to to be overcome by a superior force, they would take to their *long legs* and being blessed with good *speed* and *bottom*, always *got safe home*; now we do not seek for such qualities, as they are no longer indispensable. Our circumstances are such that we cannot keep our hogs penned the year round, and bestow upon them that attention your farmers do; but we let them run out till late in the fall *to grow* on shucks until we find it convenient to shut them up for fattening.

From your knowledge of the different breeds of hogs and from what I have said of the treatment we bestow upon them, what breed would you recommend as the best to be introduced here? Have you any on hand, and what would be the cost per pair?*

You brought out with you some fine sheep, how do you think the breed would do upon our

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* The Berkshires, by all means. They are all in all, the best hog with which we are acquainted for general use. Crossed on to the wild Wisconsin brute, they will make quite a tolerable animal. But it would be still better to breed them in their purity.

The price is from twenty to forty dollars a pair, according to age and quality.

prairies? Have you any for sale and what is the price per pair? †

Respectfully your Obedient Servant,

GEORGE REED,

Corresponding Secratary T. A. S.

A. B. ALLEN, ESQ.,

Buffalo, Erie Co.

The true interests of our Country.

The following communication is from a venerable lady of our acquaintance, the widow of a gallant revolutionary officer; and who, added to her other avocations has been *quite a farmer* in her day. Learning that we were about to establish an agricultural paper, she bade us God's speed, and has kindly contributed her mite of instruction. We gladly introduce it to our readers as a specimen of her zeal for this delightful pursuit, and as a confirmation of Gray's beautiful sentiment that, "E'en in our ashes live our wonted fires."

GENTLEMEN,—Having once been a farmer and always a patriot, it gives me pleasure to learn that there are some among us who feel disposed to promote the true intesest of their country, by drawing the attention, of some of our numerous population from their visionary plans of speculation, to the more sure and happy employment of agriculture.

It seems a little suprising, that, while almost every art and science have found their way into a newspaper, the farming interest has been so long neglected, especially as it is by experience alone that any considerable improvement can be made in perfecting that pleasing and profitable employment; and in no way can an interchange of views, and knowledge gained by experience, be so properly and easily communicated as in an agricultural newspaper.

In contemplating the subject, I find it difficult to confine myself to any one object, when so vast a field lies open before me; the *peculiar location* of our country, evidently *indicates*, that Providence designed that we should be a *distinct* and *independent* Nation; seperate as we are from the other parts of the world by vast bodies of water. Blessed with a varied and fertile soil, lying under every degree of latitude, favorable to the culture of every production necessary to the supply of our luxuries as well as necessities, with various and exhaustless mineral productions of the earth from the necessary articles of Coal and Iron, to the precious metals, including all the varieties discovered in the Eastern World, nothing appears wanting to us to carry out the design of Providence, but a proper application and direction to the labors of a numerous and increasing population, who are naturally ambitious, industrious and inventive, with spirits honest and free. For these results, Providence appears to have been preparing them, the last twenty or thirty years, in various ways, especially by the impulse given to their *inventive* faculties, calculated to hasten the improvement of the vast field before them.

Among the many improvements made in machinery for every kind of manufactures that for the use of the farmer, is but little inferior; and it appears to have changed the character of the occupation, making the business rather a profitable amusement than a laborious task.*

In view of those multiplied blessings, my mind involuntarily turns back to the time when the little band of Pilgrims left their native land, and like father Abraham, "not knowing whither they went," but guided by that *unerring* Hand which never moves without *design;* landed on the shores of America, where imagination paints them, as receiving the commands given to our first Parents,—"go multiply, replenish the Earth, and subdue it." They did accordingly, and as long as the command was adhered to, they were a prosperous and happy people. But "longing for the flesh pots of Egypt," they sought intercourse with other nations—excited the jealousy of their old oppressors, whose exertions *drove* them to *resistance, which* to the eye of reason appeared madness; but to the eye of *Faith*, "*all* things are possible," they trusted in the promises and succeeded; so that the deed of *gift* to the parents, was confirmed by *will* to their children, evidently with the design of making them a distinct and independent Nation. But disregarding the intimation, they were *left* to themselves; or to use the Scripture language, "they were left to their own delusions." and hastening to be rich, they ran into vain speculations. until they brought their country into a state of bankruptcy, both in a pecuniary and moral point of view.

"But as the wrath of man shall praise him," may not this folly, be made the means of turning the deluded people from the error of their ways, to the more rational and happy employment of agriculture?

Although I have wandered far from the point where I started, I have not forgotten the *Agricultural Newspaper*, or the pleasure I have

† The Southdown sheep brought out from England by one of the editors were to fill a special order. When the cultivated grasses are introdeced into the prairies we have no doubt these sheep will thrive upon them. Their value depends much on their quality. Twenty five to one hundred dollars, per head, is the price generally asked in America.

* We must assure our venerable friend, that the wheels of farming are not to be set in motion by "raising the gate, or letting on the steam" quite yet. Though the improvements in various matters, hav largely facilitated the farmer's operations, and added much to his profits, when judiciously applied, the greater part of the labor still remains to be done by hand.

taken in looking over the leaves of other similar papers, although at too late a period to profit by them. Having been a practical farmer, I felt much interest in the improvements now making, and although I practised pretty much on the old plan, I thought it a delightful employment, and one which made good compensation for my labor, even when every kind of produce was much cheaper than now; and every thing done by hand, instead of the machinery now in use. Notwithstanding I labored under some disadvantage, I made some improvements; I was the first to introduce Plaster of Paris in the town where I lived, and the effect it produced on a sandy soil astouished all who saw it. I was the first to *dismiss* the *long eared* hogs; I raised the best calves, and had the best cows by selecting the short-legged and broad-hipped for milk; and having some knowlesge of chemistry, I made an improvement in churning, so that I got good *yellow* butter in the hottest weather; aud having a few mulberry trees in my garden, I raised for experiment a few hundred silkworms, although I had never seen one, and made a very great improvement in the manner of winding their cocoons; also some on raising bees, all of which it will give me pleasure to communicate in the proper season. *

In short, if I can do anything to promote the legitimate design of Providence, I should feel that I was fulfilling an essential duty to my country.

Your Friend, OCTOGENARIA.

Black Rock 10*th March* 1842.

Franklin House, New York,
March 14, 1842.

Dear Sir,

I was induced to go to the "Bull's head" this morning, and examine the Beef Cattle, after a *close* "*handling*" of those in the Smithfield market, for the purpose of comparing the two markets, but I found it a harder task than I expected. It is *impossible* to describe the difference, unless to those who have some knowledge of each. I would have given much to have had the whole of them transported into England just as they appeared, and the best graziers in the midst of them.

I will venture to say, there were not more than eight of the whole number that would have sold at any price, and those I found obtained fifty per cent over the others. The whole of them looked like working oxen just ready for the grazier, but the moment his *hand* had gone through them, he would have been *off* to another fair; the quality would not do for profit. Mr. Townsend, of New Haven, sold to Mr. Montgomery, a yoke of oxen for $600, for which he deserves much credit; the beef sold from eighteen to twenty five cents per lb.

I could say much on this subject but the farmers would think me exagerating for my own interest, were I to state "*positive facts.*"

Yours truly,

WM. HY. SOUTHAM.

R. L. ALLEN, ESQ.,
36 *Park Row.*

We admit with pleasure the remarks of our correspondent above, on the important subject of our cattle market. We too, took a stroll over "the Bull's head" premises, recently, and must acknowledge our chagrin at the exhibition we there witnessed, of what *should* be "fat cattle." We speak within bounds when we say, there was not *one animal in twenty* properly fitted for the shambles. Nor were they better suited to the *stall* than to the butcher. Many of them are not only, not fit for beef, but incapable under any circumstances of being made into beef of a desirable kind; their unfitness for this important object, consisting in a radical deficiency of form and constitution, which totally incapacitates them from feeding with any profit to the grazier, or acceptance to the consumer. The rearing of such cattle is a sad loss to our farmers, and we would gladly aid them in avoiding it. And we here make them a fair offer. If they will attentively read what we may have to say on the subject of cattle within the coming five years, *and carefully practice* on our suggestions, we will ensure them at the end of that time, with but comparatively a moderate expense, a race of animals that shall return their owners, twice the amount of money for the food and attention bestowed, they now receive for their mongrel herds. We saw cattle there of the improved races, that commanded readily ten cents per lb., while many of the others were well sold at from five to six cents, and the best beef was made at the least expense, pound for pound.* The farmer, therefore, who raises the best cattle, receives more than twice as much as the owner of the inferior ones, for what costs him the same. Nor is this a difference made to suit the whim or fancy of the purchaser. The butcher makes more money out of the best, and the consumer who buys of him, gets more value for the price paid than if he bought the inferior quality. There is an actual, and in the aggregate, a vast loss to the country in rearing these uncouth brutes, and we hope the light, that is now penetrating the country in every direction, from our Agricultural papers, will ere long effect a change that will add materially to the profit of our stock raisers. We have not room to add more at this time, but shall hereafter as occasion offers, comment fully on this subject.

* We can assure our friend, we shall receive most cordially all the communications she may favor us with for the public. Though her early improvements are probably embraced in those of modern times, yet the spirit that induced these efforts and the perseverance that crowned them, are what we especially desire to inculcate upon our readers. It is a habit of close and careful observation, and the application of whatever is suggested by their own minds together with what they may find in agricultural papers suited to their own wants, that makes the wide difference between the good and indifferent Farmer.

* We dont mean to be understood as saying that thoroughly stall fed beef is as cheaply made as grazing or imperfectly grain fed animals are, but that owing to the superior fattening properties of the improved animals we saw, they were made at no greater expense than the poorer bullocks, taking the aggregate outlay of rearing from the calf, as in any stage of their existence, there was a saving in the former over the latter.

American Institute Premium Reports.

We subjoin some extracts from the manuscript reports of the American Institute of this city, on the exhibitions of products of American art, from statements offered at their Annual Fair, October, 1841.

SILK. "It is a subject of regret that among the large number of silk growers who are now producing the raw material in considerable quantities, the competitors should be so few in number. They however, take great pleasure in stating that some very handsome and interesting specimens have been exhibited at the present fair, and indulge a hope that the number may be greatly increased in time to come, for there is no doubt but a much larger assortment could easily have been sent to the Fair from the different sections of our country where attention has been devoted to the producing the raw material and manufacturing it into sewings, hosiery, shawls, handkerchiefs, dress patterns, vestings, velvets, &c. &c. which your committee is informed is now done to considerable extent in the United States. The silk business seems to have obtained a footing here. It is satisfactorily ascertained that it can be conducted so as to afford females and children, who from their situation are incapable of performing hard labor, an easy, pleasant, and profitable employment.

One of the specimens offered for exhibition has afforded great satisfaction. It was produced by two ladies, who, at an actual expense of $100.15, have the past season produced a crop worth nearly $500, beside the state bounty, (50 cts. pr lb.) which, it is understood, is sufficient to pay all the expenses of production, besides the interest on the investment of $1000 for land, trees and cocoonery. Some other fine specimens were also exhibited."

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SILK MACHINE.—Dr. Thomas White, of Tennessee, received a premium for a silk machine of which the committee speak as follows.

"It is made to execute several distinct operations in the process of manufacture, at one and the same time, carrying forward the same from the cocoon to the well-formed threads fit for the loom or sewing purposes.

Its construction is of the most simple form and made of cheap materials, and can be furnished at small expense to the user, by a class of mechanics found in great numbers in any part of the United States, and therefore conveniently open to the acquisition of all who may desire it. A system of reels is made to transfer the silk from one stage to another, avoiding the trouble of spooling or throwing, as well as the liability to break from tanglement of threads. By the simultaneous action of all the several parts and processes, the silk reeler will have produced an article of thread, instead of "reeled raw silk," in nearly the same time he would have produced the latter, had that process been the only one performed; the amount of *power* to propel the whole being so small as to offer no objection to its use by feeble persons.

Regarding this branch of American enterprise as one of the highest importance, your committee solicit for this machine the most profound attention, and recommend an award of the highest honor to be bestowed upon it, and beg leave to add in the present state of the art for which this machine is a branch, your committee regard that class of machines which are calculated to advance the raw material in the hands of the *growers* to the nearest stage of approach to completion for the consumer, best calculated to promote the early, profitable, and general embarkation of the people of the United States in the culture and manufacture of silk, and submit the following reasons as the foundation of their opinions," &c. &c.

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"THE STEAM EXCAVATOR," originally invented by Wm. S. Otis, for the purpose of excavating earth for canals, roads, &c., received the following high commendation from the intelligent committee appointed to report upon it.

"It is calculated to do the work of 150 men. Allowing for stoppages, &c., one minute is sufficient to load a car containing 1 1-2 cubic yards. This would give 900 cubic yards per day of 10 hours.

The interest on the cost, wear and tear, labor &c., is $13 50 per day, which if we call $20 per day, gives us the labor of 150 men for less than 14 cents per day each. The steam engine by which it is moved is 14 horse power, and is easily managed by two men. It works well in clay, sand, gravel, and all soils. Being placed upon a car, its position is easily changed, and advances or recedes in the manner of a locomotive as the case may require."

Here follows a more particular description which we have not room to subjoin.

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"STEPHEN YATE'S PROCESS OF MAKING CHEESE. In the making of cheese in the ordinary way practised by the dairymen of Herkimer Co., I discovered that when the milk was scalded, an oil would rise on the top and run off in the whey. I directed my dairyman not to scald the curd, and found I not only retained the aromatic oil, but also all the cream that would otherwise escape in the whey, and I kept the cheese in press for some days, (occasionally turning them,) until the linen wrapper was no longer moist. After this they were attended to in the usual way, except that they were rubbed with hog's lard instead of whey butter.

The cows supplying the milk had access at all times to good running water. The presses I used were the invention of Nathan Loomis, late of Montgomery Co. N. Y., now at Fairfax Co., Va., and cost only $4 each."

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"SIXTEEN ACRES OF CABBAGES, planted on the farm of Lambert Wyckoff by Peter Walsh in Bushwick, Kings Co., produced 61,120 heads which sold for $2,434 77.

The sod was turned over in the fall and cross ploughed in the spring. Fifty cart loads of street manure from New York city was put on an acre, at a cost delivered on the farm, of 40 cents per load, and the whole cost of cultivation $10 per acre."

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CULTIVATED CRANBERRIES were exhibited by S. Bates, Billingham, Norfolk Co., Mass. grown on his own land. He states that "low meadow land is best for them, prepared in the first instance in the same manner as for grain. The wild cranberry is transplanted into this in rows 20 inches apart. At first they require a slight hoeing, afterwards they spread and cover the field, producing crops annually thereafter without further culture. In this condition they produce much larger and finer fruit than in their wild state, the yield being from 200 to 300 bushels per acre, worth on an average in the Boston market at least one dollar per bushel. A damp soil, or when wet predominated, has generally been considered necessary, but Mr. Bates thinks this not essential to their successful cultivation; any soil unless when inclined to bake will answer. Early in the spring is the best time for transplanting."

SELECTIONS.

The following cut represents a sub-soil plough, containing three essential requisites for the small farm; cheapness, simplicity, and the small power or team required to work it, most of those introduced requiring six to eight horses to break up the ground. There is a great amount of land in this country that would be vastly benefited by the liberal use of such a plough. The intelligent correspondent of the Royal Agricultural Journal of England, Mr. Charles Gabell, in submitting it says:

The tool, of which I enclose a sketch, I work with two stout carriage horses; it goes, when required, 18 *inches deep*. It does not, of course, stir the soil so much as those before invented, having no fin, nor will it move *very* large stones; but it easily breaks the crust formed by the sole of the plough, and makes it pervious to the air and water. Having only two horses, I used it last spring after the harrow, first with the furrow, and then across and diagonally. It completely loosend the soil, and appeared effectually to prepare it for Belgian carrots, which are a good crop. I have also used it as a subturf-plough, and think it still better calculated for that work. My crop appeared much increased; and I hope this season to subturf most of the grass-land on my little farm. Those farmers who have seen it think it a useful implement.

We intended to have given several valuable extracts on the cultivation of vegetables and fruit trees, but find our original matter will occupy nearly all the room in this number. We however subjoin some general remarks on the preparation of the soils and seeds for the kitchen garden, from the practice of the Shakers, and intend in the next number, to give a complete manual for the cultivation of the particular plants it usually contains.

Before commencing the work of the garden, a few matters essential to success should be particularly attended to. In laying out a garden of an oblong form, it will be generally found most convenient to have the rows of vegetables run length-wise of the garden, so that the plow or cultivator may run through freely, without interruption, allowing an alley at each end for the horse and plow to turn round upon. The ground should be plowed or dug to a good depth, especially for long rooted plants, and be well incorporated with rotten manure or rich compost. The essential advantage of deep plowing is not only best calculated to give room for the roots to expand freely, but the crops on a deep plowed soil will be much less liable to injury from the extremes of wet and dry weather. Every garden should have a good supply of well rotted manure or old compost, ready for use when wanted; also a portion of soot, tobacco dust, ashes and lime, for the purpose of scattering over seed beds and hills of plants in dry weather, to destroy insects, which often cut off the young plants as fast as they come up.

The next matter of importance is, to work the ground and put in the seed when it is in proper order to receive it. A light, sandy soil will be benefited by working it when rather moist, as this will have a tendency to make it more compact, and better adapted to retain its moisture; but if a clay soil be worked when too wet, it will become hard and stiff, and not only prevent the seeds from rising freely, but materially injure the plants in their subsequent growth. Rolling or pressing the earth over

the seeds, will tend greatly to promote their vegetation, especially when the soil is loose and dry; but when moist and heavy, if done at all, it should be done very lightly.

If the ground be very dry at the time of sowing, let the seed be soaked a few hours in water strongly impregnated with sulphur or soot, and keep the ground moist by frequent watering. This will have a great tendency to forward the vegetation and prevent the ravages of insects.

Transplanting is generally attended with the best success when performed immediately after the ground has been newly plowed or dug; as it will then work light, and the moisture arising from newly stirred ground is highly beneficial to the growth of young plants. If the soil of the bed be dry when the plants are to be taken out of it, let it be watered freely, and then raise up the plants carefully with a trowel, or a flat pointed stick; and before setting them out, dip the roots into a mixture of rich mould or rotten manure and water, with the addition of a little lime or ashes, and reduced to the consistence of thick whitewash. This preparation is found highly beneficial to the young plants of cabbage, turnips, and others when transplanted, by promoting their growth and preventing their roots from being injured by destructive insects.—In setting young plants, the earth should be pressed a little over the roots, and raised around the stem, sufficient to support the plant, and prevent it from falling or leaning aside. The ground should be stirred often, and kept loose and light by frequent hoeing through the season.

A good garden, well supplied with useful vegetables, in a healthy, thriving state, kept neat and clean from weeds, affords a striking evidence that the cultivator posesses a good portion of wisdom and economy.

The numerous benefits afforded to a family from a well cultivated garden are too little considered by many of our country farmers, for their own interest and the health and prosperity of their families. The cheap and healthy varieties which may be furnished, (much less expensive, and far more healthy than the same quantity of meat without vegetables,) the pleasing and healthy exercise and enjoyment attending their cultivation is beyond description: indeed the cultivation and produce of a good garden are the life and health of a family, upon every principle of rational enjoyment and temporal economy.

The following Receipts were handed us by a Lady whose own experience fully justifies their insertion.

Drop Cakes.—One quart of milk, large tea-spoon full of Saleratus dissolved in a cup of cream; to which stir in flour very smoothly until a thick batter. Then dip your spoon in milk and with it place your batter at short distances in a buttered pan. Very *delicate* made entirely of cream, either with or without eggs.

Buckwheat Cakes are less tough and not as liable to sour, when mixed with *salt-rising* instead of hop yeast.

Soft Gingerbread, very nice.—Four tea cups of flour, two cups of molasses, half-a-cup of butter, two cups of buttermilk, a cup of thick cream, three eggs, table spoonful of ginger, and the same of saleratus. Mix them all together with the exception of buttermilk, in which the saleratus must be dissolved and then added to the rest. It must not stand long before being sent to bake.

Butter is improved by working the second time after the lapse of twenty four hours, when the salt is dissolved, and the watery particles can be entirely removed.

To prepare a round of fresh beef for boiling.—Put the beef in a dish of sufficient size, and add water enough to cover the lower part of the meat. Then put a quantity of salt on the top. In a few hours it becomes well seasoned, and when thoroughly boiled, makes a most palatable dish.

To boil a Ham.—Receipt from an old Housekeeper.

Put your ham into the pot at noon the day before you want it for the table, and keep the water hot until that time, then let it boil fifteen minutes.

Sausages, quite rich enough for an Epicure. Thirty lbs. of chopped meat, eight ozs. of fine salt, two and a half ozs. of pepper, two tea cups of sage, and one and a half cups of sweet marjoram passed through a fine sieve. For the latter, thyme and summer savory can be substituted if preferred.

For roasting Venison.—A large haunch will require three hours. After it is on the spit, rub it all over with butter, baste with flour and a little salt, butter a sheet of white paper, and lay over the fat part fastening it on with strings or skewers, keep it well basted, and five minutes before sending it to the table take off the paper, dust flour over it and baste it with butter till the fat is handsomely browned and covered with a good froth.

Magnesia, if you have not French chalk, will effectually remove grease spots from silk, on rubbing it in well, and after standing awhile, apply a piece of soft brown paper to the wrong side on which press a warm iron gently, and what grease is not absorbed by the paper, can be removed by washing the spot carefully with cold water.

NOTICES OF NEW WORKS.

LECTURES ON AGRICULTURAL CHEMISTRY AND GEOLOGY, by J. F. W. Johnston, M. A. &c. Fellow of the Geological Society, &c., &c., New York, Wiley and Putnam, 1842.

The volume before us contains the first eight lectures of a course, and completes the first division of the subject relating "to the *organic elements* and parts of plants, the nature and sources of these elements, and an explanation of the mode in which they become converted into the substance of plants."

We hail the reprint of these valuable lectures, by an American press, with sincere pleasure, affording as they do one of the most simple, clear, and accurate compends on the subject embraced by the author, that have yet been given to the public. It is comparatively but a short time since those very practical sciences, Chemistry and Geology, have been applied to the aid and improvement of Agriculture, Sir Humphrey Davy being the first great name, that gave method and utility and popularity to this application. Since then, others have appeared with equal ability and more success, from the accumulation of more experience and further developments of principles. Among these, perhaps Chaptal and Liebig are the most conspicuous. This work however, is in advance of any thing that has yet appeared on this subject, being more plain, full, and accurate than any of its predecessors, and correcting many of their misapprehensions. We hope to see it in the hands of every farmer, and to afford them an opportunity of judging somewhat of its merits, we shall from time to time give such extracts from it, as will be most applicable to the wants of our readers.

A DICTIONARY OF ARTS, MANUFACTURES, AND MINES, containing a clear exposition of their practice, by Audrew Ure, M. D., F. R. S., &c., &c., &c., illustrated with 1240 engravings on wood. From the second London edition. New York, La Roy Sunderland, 138 Fulton-street, 1842.

The above work is issued in numbers of sixty four pages each, with covers, embellished with well executed engravings, at 25 cents each. Twenty one numbers to be issued semimonthly, will complete the work, the first three of which have been published. The paper is good and the typographical execution unexceptionable. This work is an old and valued acquaintance, though never before, we believe, published in this country. It has long been considered a standard work in England. It is throughout practical, being based on experiments of the learned author, or such as have passed under his own observation. Though intended for the arts in their more general sense, it is yet in many of its definitions and details, suited to the wants of the Agriculturists, especially such as are disposed to investigate closely, the relations and bearings of the science of Agriculture in its fullest extent. Its principles, too, are applicable to every condition of it, one of the first articles being *acetic acid*, which is so largely abundant in vegetables, and constitutes the sour principle of vinegar. Artesian wells, beer, bread, &c. are fully treated in these first numbers, and have a direct and intimate connexion with the domestic economy of every housekeeper. We are sure the enterpirising publisher will be well rewarded in this undertaking. We shall expect to see his design carried out, in "giving to the public a volume devoted especially to the mechanic arts, manufactures, &c., of this country," and beg leave to suggest to him that it will add greatly to the value and interest of it, by interspersing it liberally with the elucidation of Agricultural principles.

FOURTH REPORT OF THE ARICULTURE OF MASSACHUSETTS, by Henry Colman, Comr. for the Agl. survey of the state, 1841. The old Bay state is largely indepted to her indefatigable and intelligent commissioner, (and we may add the country at large,) for the four successive reports he has made under her authority. We especially like one thing, *par eminence*, in the information he offers to the public; *it is based on facts*. Nothing but the tape rule, the scales, or the measure, will answer his views when available. He is too thorough-going a Yankee, to *guess* anything but what he is *certain* of. Had we more of such *guessers*, we should have fewer principles *in nubibus* than we now have. We like to see every thing reduced to as near certainty, as the nature of the case will admit. We shall take an early opportunity of spreading some extracts from his valuable work before our readers.

We acknowledge the receipt from Hon. Henry L. Ellsworth, of his annual report as Commissioner of Patents, with other documents containing much valuable agricultural information. Few men are doing more for the husbandman than Mr. E. His zeal in collecting and distributing information is surpassed by that of no one in this country. The Agricultural statistics of the U. States in this number of our work, emanates from his office.

We have also the pleasure to acknowledge the receipt of a valuable report on *Water Rotted Hemp*, with other valuable papers from Hon. Millard Fillmore, M. C.

REVIEW OF THE MARKET.

Prices Current in New York, March 24, 1842.

ASHES, Pots, per 100 lb.	$6	37½	to	6	50
Pearls, do.	5	50	..	5	62½
BEESWAX, Yellow, per lb.		30	..		31½
COTTON, Louisiana, do.		5¼	..		11
Upland, do.		5	..		9¾
Florida, do.		5	..		9
Alabama, do.		6¼	..		10¾
FEATHERS, American, live, per lb.		33	..		40
FLAX, American, per lb.		7½	..		8
FLOUR, Northern and Western, per bbl.	6	12½	..	6	31½
Southern, per bbl.	5	81½	..	6	00
RYE, per bbl.	3	25	..	3	62
MEAL, Corn, per bbl.	3	00	..	3	12½
do. per hhd.	14	50	..	15	25
WHEAT, Western, per bushel,	1	25	..	1	35
Southern, do.	1	20	..	1	25
RYE, Northern, per bushel,		60	..		62½
CORN, do. do.		60	..		63
Southern, do.		56	..		58
BARLEY, per bushel,		73	..		75
OATS, Northern, per bushel,		48	..		50
Southern, do.		43	..		46
PEAS, Black eyed, do.		50	..		75
Small white, do.		90	..	1	00
Green, do.	1	12	..	1	15
Marrowfat, for seed, per bushel,	1	40	..	1	50
BEANS, White, per bushel,	1	00	..	1	25
CLOVER SEED, per lb.		7½	..		8½
TIMOTHY SEED, per tierce of 7 bu.	16	00	..	17	00
FLAX SEED, rough, do. do.	10	50	..	11	00
clean, do. do.	12	00	..		
RICE, per 100 lb.	2	37½	..	3	62½
HEMP, Russia, per ton,	235	00	..	240	00
American, do.	—		..	—	
HOPS, first sort, per lb.		12½	..		14
LEAD, Pig, per lb.		3¾	..		4
Sheet and Bar, per lb.		5¾	..		6
OIL, Linseed, American, per gal.		90	..		97
PLASTER OF PARIS, first quality, per ton,	2	50	..	2	62
BEEF, Mess, per bbl.	7	25	..	8	00
Prime, do.	4	00	..	4	75
Cargo, do.	2	75	..	3	00
PORK, Mess, do.	7	12½	..	9	00
Prime, do.	5	25	..	7	25
LARD, City, per lb.		5½	..		6½
Western, per lb.		4	..		5½
BUTTER, best Table, per lb.		18	..		23
Western, good, per lb.		11	..		15
common to good, do.		9	..		11
Shipping, do.		6	..		8
CHEESE, in bozes and casks, per lb.		7	..		9
HAMS, Smoked, per lb.		6½	..		7½
Pickled, do.		4	..		4½
BEEF, Smoked, do.		4	..		6½
SALT, Peters & Beebee, Liverpool stoved ground, for butter in sacks of 28 lbs.		40	..		50
SUGAR, New Orleans, per lb.		3	..		5½
TOBACCO, Virginia, do.		3	..		6
Kentucky, do.		3	..		6½
TALLOW, American, do.		6½	..		8
WOOL, American Saxony fleece, per lb.		40	..		45
Full blood Merino do. do.		35	..		37½
Half to three-fourths do. do.		30	..		33
Native to half do. do.		18	.		26
SHEEP PELTS, each,		35	.		80
FAT CATTLE, per 100 lbs.	4	50	.	7	50
Do. SHEEP, each,	2	00	..	8	00
Do. HOGS, scarce, per 100 lbs.	5	50	.	6	50
HAY, unpacked, per 100 lbs.		87½	..		95
APPLES, per bbl.	2	00	..	3	50
POTATOES, plenty, best, per bushel,		25			
EGGS, per 100,	1	00			

Remarks.

The Market is uncommonly dull, and our quotations may generally be considered as the outside, as no large lots could be sold at those rates.

CORN MARKET. The demand continued limited for all articles under this head except Wheat, which is taken for export as fast as it arrives. There has been some demand during the past week for flour for export, and some 2,000 or 3,000 barrels have changed hands at our quotations, which has given a firmer tone to the Market. The season having gone by for sowing, the demand for clover seed has fallen off, and prices are only nominal.

PROVISION MARKET. The stock of all kinds of Provisions is very large and constantly accumulating. There is no prospect of any immediate change for the better. It is barely possible prices may be maintained where they are, but we should not be surprised if they receded from their already ruinously low price.

Our last advices from Europe do not speak very favorable for any demand from abroad.

AGRICULTURAL STATISTICS OF THE U. STATES.

BEING AN ABSTRACT OF THE CENSUS RETURNS FOR THE YEAR 1839, MADE BY THE COMMISSIONER OF PATENTS.

	Popul'n	wheat-bu	barley-b	oats—bush	rye—bush	buckw't, bush	Ind. Corn, bush	Potatoes. bush	Hay—tonnails—lbs	sugar—lbs.
MAINE	501,973	987,413	990,257	1,118,425	148,458	53,020	993,549	10,912,821	713,985	527
NEW-HAMPSHIRE	284,574	496,816	135,964	317,418	106,801	191,275	1,573,405	6,573,405	606,217	622
MASSACHUSETTS	737,699	199,571	157,903	506,205	91,273	1,905,973	4,947,905	617,668	169,122	169,519
RHODE ISLAND	108,830	3,407	3,276	37,973	471,022	1,008,170	1,002,142	69,381	745	106,941
CONNECTICUT	309,978	95,090	31,594	806,222	334,006	1,591,191	3,002,142	497,204	93,611	55
VERMONT	291,948	512,461	55,213	1,431,454	241,061	1,167,219	2,112,008	994,379	5,694	96,372
NEW-YORK	2,428,921	19,309,041	2,901,041	21,896,203	2,732,911	2,325,911	11,441,256	20,617,009	3,479,118	5,118,964
NEW-JERSEY	373,306	919,043	13,009	3,745,061	1,908,984	1,007,340	5,134,966	2,496,492	401,833	11,102,070
PENNSYLVANIA	1,724,033	12,572,219	203,656	6,942,643	2,485,132	14,989,472	9,747,349	2,004,162	17,231	67
DELAWARE	78,085	317,105	5,119	937,105	35,162	18,127	2,164,507	213,090	25,607	2,994,016
MARYLAND	470,019	3,747,652	93,025	671,420	6,998,124	6,998,124	6,998,124	6,998,124	6,998,124	6,998,124
VIRGINIA	1,239,797	10,010,105	2,827,365	10,962,108	1,317,574	297,109	33,987,235	94,116,253	3,131,086	2,993
NORTH CAROLINA	753,419	2,183,026	4,206	3,832,739	956,765	18,469	14,987,474	2,713,425	4,782	8,924
SOUTH CAROLINA	594,398	963,162	3,794	1,374,569	49,064	85	21,749,227	29,729	17,607	31,461
GEORGIA	691,392	1,991,162	12,597	1,526,623	55,558	642	21,594,554	1,644,235	15,358	357,611
ALABAMA	590,756	869,554	7,941	1,476,670	60	60	1,793,773	17,607	4,902	10,650
MISSISSIPPI	375,651	305,091	1,784	697,235	6,998,124	6,998,124	6,998,124	6,998,124	6,998,124	6,998,124
LOUISIANA	352,411	67	5,197	108,425	1,897	6,924,147	5,995,724	672,563	33,106	89,189,315
TENNESSEE	829,210	4,973,584	16,960	7,457,818	322,579	19,145	46,286,359	2,019,632	5,704	276,557
KENTUCKY	779,828	4,096,113	245,905	6,825,974	1,952,108	9,669	40,767,120	1,279,519	3,405	1,409,172
OHIO	1,519,467	17,979,647	33,818	15,985,112	884,191	646,541	35,452,161	6,004,183	6,279	7,109,423
INDIANA	685,866	5,282,864	102,228	6,606,098	162,026	56,371	33,195,108	1,830,852	195	3,914,184
ILLINOIS	476,183	4,026,187	11,515	2,560,411	114,656	69,549	23,424,474	1,213,634	2,345	415,746
MISSOURI	383,102	1,110,549	950	938,441	72,144	17,135	19,725,146	214,411	57,204	227,165
ARKANSAS	97,574	2,132,036	151,963	238,941	7,772	110	6,039,450	267,010	695	2,147
MICHIGAN	212,267	2,696,721	50	2,915,102	3,058,290	127,504	2,911,607	141,525	171	1,894,372
FLORIDA TERRITORY	54,477	621	5,187	13,561	42,306	320	2,911,607	1,045	984	289,146
WISKONSAN TERRITORY	30,945	6,009,901	495,925	611,527	2,343	13,525	454,819	35,603	276	147,310
IOWA TERRITORY	43,112	234,115	1,342	301,498	4,675	5,873	43,725	19,745	25	51,425
DISTRICT OF COLUMBIA	43,712	10,105	317	12,694	5,009	312		1,449	916	
Total	17,069,453	91,642,957	5,924,731	130,607,623	19,333,474	7,653,544	387,399,185	113,189,619	12,804,705	379,272	126,164,644

	tobac.—lbs	cotton—lbs.	Rice—lbs.	wool—lbs	Horses. *	Cattle.	Sheep.	Swine.	Orchard.	dairy-val.	furniture
MAINE	75			1,465,551	59,208	327,255	649,264	117,356	$149,384	$1,496,902	$804,397
NEW-HAMPSHIRE	264			1,260,517	43,892	275,542	617,990	121,671	239,979	1,638,543	538,303
MASSACHUSETTS	87,955			941,906	61,464	282,574	378,226	143,221	389,177	231,944	
RHODE ISLAND	454			193,339	6,024	36,891	90,146	30,659	32,098	223,229	51,150
CONNECTICUT	547,694			889,870	34,650	238,650	403,462	131,961	296,232	1,376,524	296,162
VERMONT	710			1,237,919	62,402	384,341	1,681,819	203,800	213,944	2,008,737	674,548
NEW-YORK	984		3,324,132	5,118,777	1,911,344	1,900,065	1,701,935	10,496,021	4,636,547		
NEW-JERSEY	2,566		66,897,944	3,699,235	474,543	220,202	219,285	281,443	464,006	1,328,032	291,625
PENNSYLVANIA	415,909		13,417,209	371,303	70,502	1,179,665	1,767,620	1,503,964	618,179	3,187,292	1,303,093
DELAWARE	363	5,484	156,469	220,353	3,048,564	53,883	257,922	74,226	28,211	62,116	
MARYLAND	26,152,816	332	861,711	175,196	365,129	64,404	14,421	39,247	416,943	176,050	
VIRGINIA	79,450,192	2,402,117	148,504,385	49,283	1,778,665	92,220	53,883	257,922	105,740	457,466	
NORTH CAROLINA	20,026,830	34,437,581	5,455	1,060,332	498,201	225,714	341,469	1,992,155	705,765	2,441,672	
SOUTH CAROLINA	69,524	43,927,171	16,848	1,786,847	2,538,374	1,024,148	1,293,772	1,649,716	1,213,634	1,480,468	
GEORGIA	175,411	66,897,944	3,765,541	1,237,919	625,044	617,371	538,279	878,532	214,411	1,413,242	
ALABAMA	286,976	116,514,211	13,417,209	371,303	299,170	538,279	1,028,981	1,623,608	57,204	674,349	
MISSISSIPPI	155,307	84,854,118	156,469	220,353	66,897,944	884,414	267,107	1,457,755	695	930,703	
LOUISIANA	129,517	112,511,263	861,711	175,196	13,417,209	623,197	128,367	1,001,209	141,525	577,810	
TENNESSEE	25,163,040	20,872,433	3,765,541	49,283	371,303	381,248	98,072	328,220	1,045	605,172	
KENTUCKY	54,678,674	687,456	5,455	1,060,332	220,353	787,099	741,503	2,310,533	35,603	11,789	1,467,630
OHIO	6,486,164		16,848	1,786,847	109,227	1,917,874	2,029,401	2,099,746	19,745	367,105	1,656,119
INDIANA	2,375,365			3,695,315	148,147	430,327	1,008,240	2,310,533	1,449	434,935	682,945
ILLINOIS	863,623	165		1,237,919	99,888	395,853	787,099	1,649,716	2,345	475,271	65,190
MISSOURI	10,749,454	196 231	596	650,007	341,409	1,917,874	1,008,240	2,099,746	57,204	1,480,468	2,866,661
ARKANSAS	185,548	7,038,186	65	562,295	327,327	619,950	675,992	1,623,608	695	674,349	2,411,672
MICHIGAN	2,249	1,132,109	5,987	64,913	211,035	626,274	395,672	1,495,254	141,525	930,703	1,413,242
FLORIDA TERRITORY	74,963	6,009,901	495,925	153,375	199,235	433,875	348,018	1,271,161	1,045	577,810	930,703
WISKONSAN TERRITORY	311			7,995	51,472	188,736	42,151	393,058	35,603	605,172	1,467,630
IOWA TERRITORY	9,616			23,039	30,144	185,190	99,610	935,690	19,745	55,240	1,656,119
DISTRICT OF COLUMBIA	59,578			707	12,043	118,091	7,199	92,680	1,449	14,459	682,945
Total	340,187,118	578,008,473	59,832,968	35,802,114	9,145	3,274	15,354	104,899	4,673	3,507	259,595
					10,794	38,049	700				153,069
					5,735	30,269					472,141
					7,995	153,375					931,363
					64,913	42,151					742,289
					650,007	562,295					100,432
					1,237,919	196,032					59,205
					3,695,315	153,375					201,062
					1,786,847	7,995					23,094
					49,283	64,913					113,655
					220,353	650,007					20,205
					148,147	1,237,919					12,567
					109,227	3,695,315					95,988
					99,888	1,786,847					1,500
					341,409	49,283					
					395,853	220,353					
					211,035	148,147					
					199,235	109,227					
					51,472	99,888					
					30,144	341,409					
					12,043	395,853					
					5,735	211,035					
					7,995	199,235					
					64,913	51,472					
					650,007	30,144					
					1,237,919	12,043					
					3,695,315	5,735					
					1,786,847	7,995					
					49,283	64,913					
					220,353	650,007					
					148,147	1,237,919					
					109,227	3,695,315					
					99,888	1,786,847				

BEETS AS A FIELD CROP.—We shall give in our next number, two important articles on the cultivation of Beets, and their value as compared with the Ruta Baga for feeding stock. Some experiments made by Earl Spencer sixteen years ago, showed a very decided superiority of the Beet over the Turnip for this purpose, and they were so carefully varied and conducted, as scarcely to admit of cavil or dispute. As strongly corroborating this result, we annex an analysis of Sir H. Davy of the two species of roots. In 1,000 parts there were of

Species.	Mucilage or Starch.	Saccharine matter or Sugar.	Gluten or Albumen	Extract.	Total Soluble or Nutritive Matter.
Swedish turnips	9	51	2	2	64
White turnip	7	34	1	—	42
Mangold-wurzel	13	119	4	—	136
Orange-globe	25¾	106¾	1¼	—	133¼
Sugar-beet	17¾	126¾	1¼	1	146¾

It will be seen by the above, that *each of the three varieties of Beet subjected to this test contained more than twice as much nutritive matter as the Swedes, and more than three times as much as the white turnip.* These are important facts if affirmed in this country, and especially as the latter are liable to so many enemies, as to render the crop in most seasons a very uncertain one. At least such is our experience, for though we have never failed in obtaining a *good crop* of Beets, when the seed was perfect, we have scarcely ever succeeded in a good crop of Turnips. We partially remedied their destruction from the fly last season, by soaking the seed in Tanner's oil, two or three days previous to sowing, and then rolling in plaster.

☞Several advertisements were received too late for insertion in this number. They should hereafter be sent in previous to the 20th of the month.

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